

# THE MEDICAL JOURNAL OF AUSTRALIA

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The Journal of the Australian Branches of the British Medical Association

VOL. I.—9TH YEAR.

SYDNEY: SATURDAY, JANUARY 28, 1922.

No. 4.

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### THE PROPHYLAXIS OF VENEREAL DISEASES.<sup>1</sup>

By P. FIASCHI, M.D. (COLUMBIA), D.D.S. (NEW YORK),  
M.R.C.S. (ENG.), L.R.C.P. (LOND.),  
*Sydney.*

THE problem of the prevention of venereal diseases is one of the largest propositions that confront the medical profession of all countries. In a discussion such as this I can only touch on a few of the main features and, having regard to the gentlemen who will enter on this discussion, I propose to be brief, dealing with the subject as it has presented itself to me; I trust that it will be fully ventilated, that the results of other workers will be brought forth and if there be any new proposition, that it will be submitted.

It has always occurred to me that we, as medical men, when a man or woman who has exposed himself or herself to venereal infection, applies to us for preventive measures, should do all in our power to assist him. The question of his morality should not be considered. When a person has been exposed to an infection of diphtheria, no scruples are raised about giving him a prophylactic inoculation. In the case of diphtheria there may be many contacts and we inoculate them all! In the case of a probable venereal infection there is only

one individual and I contend he is entitled to any preventive measures at our hands.

The following have been enunciated as the four scourges of humanity: (i.) cancer, (ii.) tuberculosis, (iii) syphilis (with which gonorrhœa should be added) and (iv.) alcoholism.

The efforts of the whole scientific medical world have been for many years and are now directed to a solution of the cancer problem and that of tuberculosis, backed up by huge monetary funds generously given by high-minded, wealthy men and women. The problem of the prevention of venereal diseases has not had a fraction of the attention given to it that it warrants and that the other three scourges have.

In the first place, I do not think it possible in any large community, no matter what official methods are adopted, to formulate the given number of those with actual or latent venereal diseases. One sees from time to time figures given by different observers in different cities as to their estimate of those suffering with venereal diseases, but I think they are illusory and are taken chiefly from the record of private or hospital practice or compiled from a given number of Wassermann examinations made on certain numbers of patients, either in general or special hospitals. The floating venereal population of any large community cannot be calculated; they are opportunists of the first water,

<sup>1</sup> Read at a meeting of the New South Wales Branch of the British Medical Association on October 28, 1921.

who seek treatment from any source only if some accident arises and break off treatment just as soon as their acute troubles subside. After the cancer problem, I think the prevention of venereal diseases is next in importance. It is certainly a greater problem than that of prevention of tuberculosis, but, as I will show later on, it is practically a very much easier enemy to deal with by direct prophylactic attack, although constituted by three diseases: syphilis, gonorrhœa and chancroid, as against one, tuberculosis.

So far the main effort of the prevention of venereal diseases has been made by the formation by well-meaning men and women of societies for spreading the knowledge of the devastating effects of venereal diseases, their character and the need of early marriage and of chastity in those who are not in a position to marry and the establishment of clinics for treatment.

#### Early Marriage.

With regard to the proposition of early marriage, I wish to make a small digression and to ask what is the medical profession itself doing to help or further early marriage amongst the future graduates? We can say the pre-medical education has been lengthened and the standard raised. The medical curriculum has also been increased, so that, taken on an average, the young medical graduate will be about twenty-five years of age. Let him have, say, two years in hospital as a resident to equip himself further and another five or seven years to get well established, without considering all his now heavy burden of purchasing the most necessary of a practitioner's outfit at a very high cost, due largely to the efforts of our benevolent Federal Government, which has imposed crushing duties on many necessary instruments and drugs not likely to be produced in this country until probably the time the late comet revisits us. Taking all these factors together, it is easily reckoned that the future medical man will be anywhere from thirty-two to thirty-five before the question of marriage can be entertained.

I think that we must take men and women of this world as they present and carry out their lives in our generation. There has been illicit intercourse ever since our world began and unless some clever scientist can elaborate a vaccine of chastity and there is universal vaccination with this vaccine, so long will that intercourse continue. I do not think there is any method or means at our command by which we can stop this, but I think we have the means at our command of strangling its results. I wish to be understood that I do not decry any means that may reduce venereal infections, but that I consider that all social and educational propaganda should be encouraged and brought to bear to assist direct prophylactic measures.

In the field of preventive medicine there is none which will give better results than in the field of prophylactic treatment against venereal diseases. While, unfortunately, we have no method of vaccination against syphilis, gonorrhœa and chancroid, as compared with typhoid, paratyphoid, small-pox and cholera, the individual who, if shown by a competent expert how to protect himself or receive the prophylactic

lactic treatment by an expert within a given number of hours following an exposure or numerous exposures at one given sexual seance, will, I warrant, show as good results as the inoculation of vaccination against typhoid, small-pox, paratyphoid or cholera or tetanus.

The question brought down to real bedrock is this: Are we going to be satisfied with the present measures, which are chiefly moral welfare propaganda, and treatment of the several diseases when they occur, or are we going to attempt what has been successfully carried out in the prevention of other diseases, that is, direct attack by prophylactic measures to diminish infection?

#### Prophylaxis.

I propose to deal with the prophylaxis of venereal diseases as follows:

1. Improved and more thorough courses in venereal diseases in our medical schools, which should be obligatory to all students, male and female.
2. Liberal education of girls and boys with regard to venereal diseases and the dangers of promiscuous intercourse and what methods to adopt if they occur.
3. Measures to be adopted by the male before and after illicit coitus.
4. Measures to be adopted by the practitioner in the way of venereal prophylaxis to candidates seeking the same after coitus.
5. The thorough routine examination of public prostitutes where possible and their treatment.
6. Instruction in schools to boys, especially of personal hygiene of the genitals.
7. Circumcision of all male children.
8. The establishment in largely populated centres of dépôts for venereal prophylaxis, supervised by recognized specialists, assisted by trained men. These dépôts should be maintained either by State or municipal funds. A nominal charge should be made at these dépôts for services rendered; records should be kept of the persons treated prophylactically, so that each year comparison could be made with the number of patients with venereal infections treated at hospitals, as to the effectiveness of the dépôts. As I remarked at the last Congress in Brisbane, there should be dépôts for women as well as men.

#### I.—Education of Medical Students.

I will deal with these propositions in detail. First, improved instruction in our medical schools in the pathology, symptomatology and treatment, with a view to securing successful end results. In the discussion at the Australasian Medical Congress at Auckland in 1914 I called attention to the fact that it was necessary for us to put our own house in order first. At that time there was not a medical school in Australia or New Zealand which had provided a chair of venereology for its students. I contend that the study of venereal diseases is of very much more importance than that of psychiatry. We all know that the young man entering medical practice should have first a good knowledge of obstetrics and second of venereal diseases; he will make his first successes in these branches if he is proficient and render his community great service.



In Europe and America every first-class school has a chair of venereal diseases; it is largely due to the efforts of a long line of eminent professors since the time of John Hunter, Benjamin Bell and Philippe Ricord that our present-day knowledge of the pathology and treatment of venereal diseases owes its high development.

The importance of the use of the microscope and ultra-microscope are not sufficiently emphasized. Men in practice will examine their own preparations systematically for the tubercle bacillus, whereas the examinations of the *Spirochaeta pallida* with the ultra-microscope and of the gonococcus are infinitely easier but are omitted. Janet has truly said that the microscope is the most important instrument in our armamentarium in the diagnosis and treatment of gonorrhœa. It is truly the beginning and end of the whole proposition.<sup>1</sup> Too little attention has been given in the past to the slight chronic urethral discharge in the morning of the male, which has been and is the ruination of the health of thousands of girls and women. The repeated use of the microscope is the *sine qua non* as arbiter of the infectivity of these slight urethral morning discharges which are cursed with that damnable term "just a little gleet."

#### II.—Education of Boys and Girls.

The second point is the liberal education of both boys and girls with regard to venereal diseases.

I know this is not a savoury subject and everyone tries to shoulder it on to the other—the doctor on to the parents, the parents on to the parish priest and so on. It seems to me that it eventually will devolve on the medical officers of the Department of Public Instruction.

However, both sexes should be informed that there are three venereal diseases and that every illicit intercourse is a potential venereal infection. This should be strongly impressed upon them. Further, if illicit coitus should occur, they should apply immediately either to a medical practitioner or to a dépôt for prophylactic treatment, with a view to the security of their future health. I know it will be said there will soon be hundreds of girls applying to doctors or dépôts to have this done to prevent impregnation. Considering the number of blank charges that are fired off every night in Sydney and its environs now and in the past, this can be disregarded.

It is a sad fact that many youths and young men are allowed to leave the paternal roof without any advice as to the dangers which await them from illicit intercourse. Their subsequent knowledge is obtained in the majority of cases only at a disastrous price to themselves, to say nothing of the risk to which they subject one or more young women who are quite healthy, by reason of their ignorance of the infective condition of the young male if not completely cured. This ignorance is not a monopoly of the young, but is shared by the adult and middle-aged, as may be seen in the cases of conjugal gonorrhœa, with examples of which you are all familiar. No doubt each of you could recount episodes of this kind from your practices.

There is need of a modern Virgil arising to give us another epic, but instead of the classical "I fear the Greeks bearing gifts," let his writings have greater scope for the benefit of humanity by commencing with "I fear the man bearing the morning drop!" and so stimulate the public and profession as to the actual and potential dangers of these small, chronic urethral discharges in the male.

I wish to emphasize the fact that the whole population should be impressed that every illicit intercourse is a potential infection of either party. Even the veterans in venery very often succumb, owing to the blind confidence of the man in the particular woman he meets, so that even prophylactic measures are often disdained.

#### III.—Immediate Prophylactic Measures.

I come now to one of the most important factors, the measures which are the first line of defence. There stands out the use of the French letter or condom and the preliminary use of the calomel ointment of Metchnikoff. It is a strange fact that the use of the condom is not a popular preventive measure in this community. I have many times heard men say they would not use a condom at any cost, because they did not get any good out of the woman if they used one, as if some magnetic influence passed up the urethra before or after ejaculation or a spark gap occurred between the *glans* and the cervix. One or more venereal infections often convinces these gentlemen. Again, some men are extremely awkward at an awkward moment in adjusting a condom. One has only to see the neophyte in surgery adjusting the first pair of rubber gloves to assist at an operation and one can well imagine some unfortunate horny-handed individual trying to manipulate a fine French letter, still worse if it is one of the skin varieties that require immersion in water before adjusting. Notwithstanding these difficulties, it is to be recommended.

The ointment of Metchnikoff is to be commended and is probably some protection against syphilitic infection, but not against gonorrhœa, for the reason that men do not know generally that a small piece of this ointment should be inserted into the meatus, as well as smeared liberally over the *glans*, the prepuce and the penis. I have seen a number of cases of infection by the gonococcus, even after the use of the calomel ointment. Following coitus the individual now has a variety of single-ended and double-ended tubes containing a range of antiseptics for squeezing into the meatus and for anointing the *glans penis*, prepuce and the skin of the penis.

All these pieces of apparatus presuppose some technical knowledge on the part of the man and unless the individual is well versed in sexual congress or has been well instructed by a competent authority, the correct technique of their use is not generally carried out or is rapidly forgotten.

The most popular method undoubtedly and most generally adopted is that of more or less thorough ablation with some aqueous solution of some of the more popular antiseptics. Of these, permanganate of potash leads easily, chiefly, I think, because a bottle of the crystals is generally to be found on the shelf of the lavatory of the assignation house

<sup>1</sup> Janet: "On connaît mal le gonocoque," *Journal d'Urologie Médicale et Chirurgicale*, 1911, Volume I..

or flat, together with the douching apparatus of the lady.

Notwithstanding these more or less well-carried-out antiseptic ablutions, I will wager that most of you have had cases of venereal infection where, after making your diagnosis, the unfortunate individual has told you that he carried out a most thorough post-sexual toilet. Again, here it will be found in questioning that, notwithstanding a thorough washing or even immersion of the penis in antiseptic fluid, the prophylactic measure has failed, because the man did not know it was necessary to open the meatus and let a few drops of antiseptic pass as far as the navicular fossa.

The following is an example. A gentleman well versed in the use of antiseptics, who had successfully negotiated a Neisserian urethral infection two years previously and as the result was very much on the *qui vive* as regards another infection, on alighting at his destination at 11 o'clock one night met an old friend and repaired to her flat. After spending an hour with her and making a fairly careful post-sexual toilet with the drugs the lady possessed, he returned to his rooms a few minutes' distance and went to bed. After an hour in bed he thought it best to make doubly sure and gave himself a thorough abluion with a fairly strong solution of perchloride of mercury and then retired. The following night at nine o'clock he noticed a slight urethral discharge. In the morning this had become muco-purulent and when I saw him at 9.30, the microscope decided a gonococcal infection. On questioning him, he admitted that, although he had made a very thorough abluion the second time, he had omitted to open the meatus and to allow some of the antiseptic to pass into the meatus. I grant that such a case is one of unusual virulence and very precocious, but it does occur.

I may say that our knowledge of the mechanism of gonococcal infection of the urethra is not complete. It can readily be understood that the meatus may become infected before penetration from the female urethra or from the Bartholin's glands or after penetration from the secretions of the cervical canal, but in view of the expulsive forward movement of the semen at the time of the orgasm, one would believe that any pus with gonococci in the calibre of the meatus might readily be projected with the semen. This is assisted also by the fact that most men urinate immediately after copulation, with the idea of cleansing or freeing the urethra from a possible infection. Notwithstanding these two features, a Neisserian infection of the urethra occurs and we are compelled to pause and consider the exact mechanism of infection of the meatus and urethral mucosa. Another proposition suggests itself; it is has the gonococcus any migratory power when deposited on the *glans penis*, the penis or the prepuce to enable it to reach the meatus and urethra?

The use of prophylactic hand injections by the individual himself are to be commended, but how often are they provided with a urethral syringe at the proper time, or do they have the knowledge of what solutions to use and the proper technique?

From time to time all of us see what may appear to be a Neisserian infection of the urethra which proves on microscopical examination and on eliciting from the man the fact that he has applied as the post-sexual toilet a strong solution for a hand injection, to be a chemical inflammation of the urethra.

All of these measures, the use of the condom, the calomel ointment, the various tubes of antiseptic solutions, ablutions by antiseptic solutions, the use of prophylactic hand injections, presuppose a fair knowledge in the technique of their use. The veteran, as a result of his battles with Venus and his subsequent experiences in the treatment of his various attacks, becomes more or less proficient and manages very often to protect himself, whereas most young men, having only a hearsay knowledge of prophylactic measures to be carried out by themselves and, as a result of their ignorance of the proper solutions and technique, do not make a success of them. The younger man also in many cases disdains them, as he is so blinded with the purity of his partner.

As a result of my clinical experience in America and here, I have little faith in the results obtained by the prophylactic measures as carried out by the average man to protect himself. It may be compared with the proposal that the patient carry out his own anti-tetanic inoculation.

#### IV.—Prophylactic Measures Applied by the Practitioner.

I judge this to be our great opportunity. Without going into many different methods of technique, I will describe the method which has served me in a most efficient manner in the fourteen years' practice I have had here and in the Australian Imperial Force. There is nothing original in this and there may be better methods; "every man has his own way of making love," but I can strongly recommend this prophylactic measure as efficient, practical, capable of being carried out by any practitioner without special armamentarium, clean and cheap. The technique is as follows: The man is made to pass water and to empty the bladder. The *glans*, meatus, coronal sulcus, prepuce and skin of the penis are quickly but thoroughly washed with a one in forty hot solution of carbolic acid.

These areas are then examined for any slight abrasion, the possible point of entry of syphilitic or chancroidal infection. The number of small superficial lacerations of the frenum, prepuce and retrocoronal prepuce after coitus are very much greater than is generally thought. If any slight abrasions of these muco-cutaneous surfaces are found, they are touched with a 10% solution of iodine crystals in ether. Finally, 300 c.cm. (10 oz.) of 1 in 10,000 solution of potassium permanganate in warm water are used. The *glans penis*, coronal sulcus and prepuce are gently irrigated with a 100 c.cm. vesical syringe, metal and glass or hard rubber, reserving the two refills for the irrigation of the meatus at a distance of 5 cm. or 6 cm., the meatus being kept open with the fingers and, lastly, after a metal, rubber or china Janet urethral tip to the syringe has been adjusted, gentle irrigation of the first five centimetres of the urethra or to a point

where the urethra distends slightly under the fingers of the hand holding the penis. The preliminary irrigation of the meatus at a distance with the second syringeful must be insisted on. The individual is then advised not to urinate for two or three hours.

The total time occupied by the prophylactic treatment after the practitioner has his solutions in position and ready will vary from five to eight minutes.

Keen regard must be paid to abnormalities of the penis, especially as regards the various degrees of hypospadias, juxta- and para-urethral sinuses and it is here where medical practitioners with ordinary anatomical knowledge have the advantage over even fairly well-trained attendants. I have seen the latter try and irrigate the pseudo-opening of a hypospadias, not noticing that the real opening of the urethra lay further back.

As regards the titration of the permanganate solution, a strength of 1 in 10,000 is sufficient. Those of you interested in the question of the effect of varying strength solutions of potassium permanganate on the gonococcus, will find a very complete exposition in the first volume of the extensive treatise on gonorrhœa by my friend, the late Dr. F. P. Guiard, of Paris, published in 1899, a distinguished pupil and assistant of the late Professor Guyon. In my experience I have found 1 in 40 carbolic acid solution the best of all as an antiseptic solution for prophylactic cleansing of the genitals after coitus and I hold that no antiseptic has greater virtues in this respect than that of our great benefactor, Lord Lister. It is pertinent to ask up to what time after coitus does this prophylactic measure remain effective? In reply this can be definitely stated to be between twenty-four and twenty-eight hours after coitus.

I had a fairly extensive experience with this measure before the war in my private practice and have never seen it fail. I encouraged my patients in discharging them after successfully treating them for their troubles if they should have illicit intercourse and a French letter was not used not to allow themselves to become infected, but to apply for the prophylactic treatment on the following morning, in order to save themselves endless discomfort, mental disturbance, loss of time and money in getting treated successfully again. During gala weeks that occur in this city at various times of the year, persons have frequented the brothels of this city as many as four times in one week, have received the prophylactic treatment next morning and have remained immune. Naturally, it will be asked what is their number? I can quote these specifically from my records obtained in the Ambulance of the First Australian Light Horse Brigade in Egypt, prior to Gallipoli and in the Ambulance of the Thirteenth Infantry Brigade after Gallipoli. After the arrival of the First Australian Light Horse Brigade in Egypt in December, 1914, we quickly accumulated 268 cases of venereal infection, roughly 11% of the Brigade. Of these, eleven only were of syphilis (five were Australian in origin), the great majority being gonorrhœa and about forty chancroids, with or without bubo, and some twenty gonorrhœa with chancroids and with or without bubo.

A light horse brigade on a war establishment consists of 1,860 men and non-commissioned officers and 100 officers. To have 268 men of a light horse brigade incapacitated by venereal disease and prevented from being able to move off at once was a very serious matter, representing as they did practically half a light horse regiment. I made representations to my Officer in Command, Lieutenant-Colonel Tate Sutherland, with regard to prophylactic measures, who in turn brought them before General Chauvel. It is to these two gentlemen I owe my thanks, as they agreed that prophylactic measures must be carried out and supported me. I put these measures in motion, with the result that 800 consecutive men received the prophylactic treatment without one developing venereal disease. It has to be borne in mind that this prophylaxis was directed primarily against gonorrhœa, but was equally successful against syphilis and chancroid. Rest assured that these results were most gratifying to me, as it fell to my lot to treat the 268 men who had become infected before our leaving for the Peninsula. Apart from the Light Horse, no man from the surrounding units who arrived after we did—the Fourth Infantry Brigade, the Australian Veterinary Corps, the Fourth Field Ambulance—was refused the prophylactic treatment at my hands. No discrimination could be made to which unit they belonged, but all were given the advantages of the prophylactic treatment in the best interest of the individual and for the benefit of the Service. No records were kept of these, but I heard of no subsequent infections. There was, however, a large number.

Coming now to the Thirteenth Infantry Brigade, five hundred men came under the prophylactic treatment. As the Fourth Division was organizing at Tel-el-Kebir and Serapeum, six men developed subsequently venereal infections, as follows:

No. 2728, Fiftieth Battalion.—Prophylaxis, March 8, 1916; chancroid, March 14, 1916.

No. 1402, Forty-Ninth Battalion.—Prophylaxis, March 9, 1916; chancroid, March 16, 1916.

No. 2034, Forty-Ninth Battalion.—Prophylaxis, March 9, 1916; chancroid, March 14, 1916; urethritis, March 15, 1916.

No. 4198, Fourth Engineers.—Prophylaxis, March 20, 1916; urethritis, March 25, 1916.

No. 1349, Fiftieth Battalion.—Prophylaxis, March 20, 1916; chancroid, March 23, 1916.

These, in my opinion, were due to the prophylaxis being availed of too late, as the men had forty-eight hours' leave and six hours were spent on a long journey both ways before the prophylactic treatment was available, so that from thirty to fifty-four hours elapsed after coitus.

Taking these two sets of figures together, 800 and 500, a total of 1,300 with six venereal infections after the prophylactic treatment, a percentage of less than 0.5%, needs no further comment.

I can vouch for the accuracy of these figures, as in the Light Horse Brigade all the men with venereal disease were treated at the Ambulance and those of the Thirteenth Brigade were treated at the Thirteenth Field Ambulance until we had to occupy



the position of an advanced dressing station, when they were evacuated. The period of incubation of gonorrhœa in Egypt was long. It was a common occurrence for the men to have a period of incubation of from ten to fourteen days. I can offer no other explanation than that it was a quality of the gonococcus. The duties of both mounted and dismounted troops were extremely arduous; this would have favoured an early onset of the disease. The Egyptian gonococcus, like many other Egyptian institutions was "somewhat slack and a slow beginner."

Cairo and its environs can easily hold its own with regard to providing facilities for acquiring venereal infection with any city in the world; if these results were obtained in a tent, with all the filth and dirt of the desert to contend with, they can be very much more easily duplicated here. As I mentioned before, I can commend this method as practical, cleanly and cheap. The use of such preparations as protargol and argyrol have the disadvantage that they stain the clothing of the individual and in civil practice men are very much adverse to this. They are now quite expensive and if used in a prophylactic dépôt on a large scale, this would amount to a big item.

If I were asked to name one single measure which is effective in the hands of the medical practitioner, given that he was placed in such a position that he had neither syringe or permanganate solution, I would say that the thorough washing of the penis as before described and the instillation of a few drops of one in forty carbolic acid into the open meatus, the penis being held vertically for a minute or two, will prove successful in many cases in preventing a venereal infection. I have been appealed to many times in my travels to do something at once for an individual who has exposed himself and, by using merely the one in forty carbolic solution, venereal infection has been prevented.

There comes now another question and this is, what can be done for the man who has allowed a number of days to elapse and all at once dreads specific infection, the average period of incubation of gonorrhœa having elapsed. There are now on record a number of cases in which a prophylactic treatment by the various salvarsan preparations and derivatives has been carried out, but, whilst granting abortion of the chancre may occur, there is no definite evidence to prove this.

However, it is a measure that remains in the practitioner's hands and should be employed as a prophylactic measure in such cases. Since the war there is the case of the French physician who inoculated himself with serum rich in spirochaetes from a typical chancre controlled by other observers. He then submitted himself to a series of intravenous injections of one of the arseno-benzols. No primary accident developed, nor secondary and no complement fixation took place at subsequent blood examinations. In the discussion on this case at the French Society of Dermatology and Syphilis, it was agreed that this single case in the human was inconclusive. Other similar cases were required. Furthermore, it was added that there are persons who are refractory to syphilitic infection.

In addition, the possibility of a complete or partial immunity from an hereditary syphilis must be scientifically eliminated. As an example of this, the following case came under my observation some years ago. Five men at a *soirée* in one of the most ancient and notorious parts of our city had intercourse with the same lady. Four developed primary accidents. The fifth appealed to me if anything could be done for him, as no lesion had up to that time appeared and he was extremely apprehensive. This was before the days of arseno-benzol. However, he presented fairly well-defined nasal stigmata of hereditary syphilis and I felt warranted in assuring him that he would escape, on account of a probable immunity. A subsequent long period of observation confirmed this. The gentleman celebrated this in the classical way, with many boastful remarks at the expense of his unfortunate comrades.

While it cures syphilis, mercury does not prevent it. The following case, reported in the French *Annales des Maladies Vénériennes* a number of years ago, illustrates this. It was the case of a young man with a mass over the occipital bone. The clinical diagnosis was gumma in the occipital area. He received thirty injections of biniodide of mercury intramuscularly. During this course of mercury injections he acquired a chancre, accompanied by the usual *cortège* of symptoms. The mass over the occipital bone later proved to be tuberculous.

In a recent number of *The Journal of the American Medical Association* there was an interesting discussion with regard to the prophylactic treatment of hereditary syphilis in the pre-natal period. Bennett, of New York, stated that at the New York Lying-in Hospital, the Wassermann test was carried out on all applicants, either for outdoor confinements or for subsequent admission to hospital for confinement. The percentage of those yielding positive Wassermann reactions of all the women amounted to 8%. He rightly remarks that it was expected that with careful ante-natal specific treatment, there would be a manifest reduction in the syphilitic accidents of the fetus and new-born. This gives one much food for thought, having in view how our seniors and forefathers dealt successfully with syphilitic infantile polymortality, using their time-honoured treatment with mercury and iodide, either by pills or as medicine. I think that we should continue this, so as not to arouse any suspicion in the female by the use of injections of arsenicals, which may tend to disrupt or create breaches in the social unit, the family. The public is now well aware of the special uses of the arseno-benzols.

In concluding this phase of prophylaxis, I would suggest that each of us should impress on our patients the necessity of availing themselves of that form of prophylactic method which we favour after illicit intercourse and carrying out that method or technique which has given him or her good results in the past.

#### V.—Examination of Prostitutes.

With regard to the control and prophylaxis of venereal diseases from the point of examining all prostitutes and interning those who are found to



have active signs of venereal diseases, we can say now, after all the experience gained in many European cities where this practice has been in vogue for a number of years, that this is not a very easy matter, notwithstanding all the coercive measures that may be brought to bear.

In the first place we may ask the question: Can all the prostitutes of a town be examined collectively and individually? To this question we can answer emphatically, "No!" Although we may be able to deal with a certain percentage, those resident and inscribed in public houses of prostitution, we cannot deal with the clandestine prostitute, that is, street walker or those who are not resident, that is, transients in the houses of prostitution or toleration. As is well known, most houses of prostitution either have a fixed garrison of women, with accommodation for them, or keep a small party of them resident and have a large number on the reserve list, whose services can readily be enlisted in a few minutes by telephoning to their flats, rooms or residences or by messenger, should there be a rush of business.

For the sake of argument we will say the house of prostitution is a registered one, with the names of the inmates on the active list inscribed by the authorities. Then it may be easy enough to cause all these women to be medically examined at any given time. But how are the authorities going to deal with those semi-public prostitutes on the reserve list, who are always ready to respond to the call, not only of one particular house of prostitution, whose owners patronize them, but of many. This type of woman is usually on the reserve list of a number of houses and they not only lend their services to the public houses when business is extremely brisk, through many clients calling, but, in addition, have their own regular *clientèle* to take care of in their own flats, rooms or residences. This particular *clientèle* is a very numerous one, because as we all know, many men, for many different reasons, will not go to a public house of prostitution, but will gladly avail themselves of some semi-private address, where they can arrange and carry out their sexual obligations without publicity, with propriety and without such an intermediary as the "madame." Of our men in Egypt who were treated for gonorrhœa or chancroid, many of them informed me that they had gone to some private flat or apartment, where they had been advised they could get some "private stock" or some "veiled stuff," meaning the native ladies and altogether "something out of the ordinary." For this purpose they had in some cases paid three or four pounds Egyptian, with a resulting gonorrhœa or chancroid.

This is the very class of case, both abroad and here, in which the man is disarmed by his blind confidence in the woman and, if armed with the French letter, calomel ointment or protargol solutions, he will not put them into operation, relying on the statement of the lady "that such measures are totally unnecessary in her case, as she is perfectly well and in the best of health, has not had a man friend for over a week or two weeks, that such an action on his part is only a reflection on her";

in some cases she turns the tables completely on him by demanding if "indeed there is not something wrong with him?" The man in the majority of cases sheepishly puts all his prophylactic apparatus, probably carefully laid out on the wash-stand or bureau, back into his pocket, accepts her statement and even in some cases refrains from looking at the "famous medical certificate" we all know of, well worn and finger marked and usually of a very ancient vintage, which she immediately rushes to produce from amongst the leaves of the family Bible or the chate-laine bag where it has been placed for safe keeping. The man is quite satisfied; he feels his suspicions or precautions are unjustified and is lulled into a sense of false security by such an indignant outburst and convincing documentary evidence. There is no doubt that this very man, in his dealings in other walks of life, before accepting such documentary evidence would first seek the advice of his lawyer. However, in the case of a woman, unless he has served a more or less hazardous apprenticeship in these affairs, he accepts her statements without reserve.

Granted that all the prostitutes, both public and clandestine, in any city could be examined! They would have to be examined twice a week, if there is to be any value at all in medical inspections. And granted that there could be internment of prostitutes that have been found to have become infected, what then? It would mean, if this examination is done in a thorough and scientific manner by competent men, that there would have to be a large staff of venereal disease specialists, some expert microscopists, assistants, nurses, attendants, clerks of records, police of public morals, etc..

The diagnosis of the grosser forms of venereal disease may be made clinically with the naked eye, but when it comes to the question of women with chronic gonorrhœal infection of the urethra, Skeen's glands, Bartholin's glands and cervical canal, it means an extensive and careful microscopical examination of the secretions taken aseptically from the various anatomical localities named.

In the case of sores of the genitals of an ulcerative character, unaccompanied by constitutional signs of syphilis, such as the oral or cutaneous, it means an examination or repeated examinations of the secretion of these lesions with the ultra-microscope, so that they may not be confused with a possible chancroidal infection.

Now, to add to the difficulties of the prophylaxis of venereal diseases taken from the prostitute side there comes, in my opinion, the greatest difficulty of all. This is the woman must be a consenting party and lend all her assistance to the diagnosis if the medical examination is to be a test of real value. Gonorrhœal infection, when it reaches a chronic stage in the woman, does not give her much or any discomfort unless the Fallopian tubes or ovaries are involved. Give her an opportunity to douche herself thoroughly, to empty her bladder, to wash the external genitals well with soap and water and in the massage so produced to express the scanty secretion from Skeen's and the Bartholin's glands which infect at the time of coitus when the physiological amount of their secretion becomes increased.

Let all this be carried out, as the profession knows is usually done before she comes up for examination, and my experience forces me to say that I defy any man of experience, who, having failed to find the gonococcus in any of the microscopical preparations after such a house cleaning, is thereupon immediately ready to get up into a witness box and on oath to state he is sure the woman does not harbour the gonococcus.

Does anyone think for a single moment that a prostitute, whose livelihood, clothes, eating, room rent, etc., depends on her genitals and being able to put them into commission, will lend her assistance. Because, even those who reside in houses of prostitution generally have to pay and pay excessively for all these things, as it is part of the system and privilege of those who maintain houses of prostitution to fleece their inmates as much as possible and let them pass the fleecing tactics on to their clients. Even if she knows she has gonorrhœa, is it likely that she will lend herself whole-heartedly to such a medical examination, which may result in her being interned, placed in a venereal diseases hospital and so be put *hors de combat* for a varying period of time?

However, the examination of prostitutes will eliminate a number of infected women and should be encouraged as another spoke in the wheel of venereal prophylaxis.

#### VI.—Instruction on Personal Hygiene.

My experience with thousands of our young men compels me to state that the average young Australian adult knows nothing whatever about the personal hygiene of his external genitals. Even where bathing facilities are available, men will take a bath and omit cleansing the genitals. The conditions one meets under many of these redundant elephant trunk-like foreskins are better imagined than described. I do not refer specially to the gentleman you are all familiar with, he who comes to your consulting room with some trouble of the penis and tells you that he has purposely not touched his penis for a period varying anywhere from two days to a week, so that "you would exactly see how things were with him," but to our average young man, either of the city or country.

The method of cleansing adopted by the majority is of pinching the long foreskin and urinating into the preputial sac until it is distended and then liberating the same.

#### VII.—Circumcision of All Male Children.

I do not think any medical man can raise any objection to this small surgical procedure, having in view the great assistance it gives to the personal hygiene; it tends to avoid venereal infection, chiefly syphilis.

Moses discovered that the same conditions obtained with his hosts in Egypt as a result of their sojourn there as we did and his order was centuries ahead of the times.

#### VIII.—Depôts for Prophylaxis.

It is in the establishing of these small depôts in large cities that I think the greatest results will be

obtained. I feel sure that as soon as the male community is aware of the existence of these depôts and know that they are countenanced by State, municipal and board of health authorities, they will be very extensively patronized. One has to look at it this way; the average male, after an illicit coitus, will in most cases avail himself of some prophylactic measure. If he has not been provided with a French letter and has to secure, say, a prophylactic tube or a hand syringe, he will content himself with what he thinks is a more or less thorough ablation with some antiseptic solution or soap. Now, if the depôt exists and he knows that for a nominal charge he can obtain the prophylactic treatment by an expert and that the whole process occupies a small period of three or four minutes, depending on the number in the queue waiting, he will repair to the depôt the same night of his engagement with Venus or the following morning, when second thoughts are beginning to arouse his ideas of prudence and self-preservation. It seems to me that the prophylactic venereal disease depôts should be given a distinct chance. They should be put on trial for two years and conclusions drawn as to their worth by the figures of the large venereal clinics in our city, either remaining stationary or diminishing.

The following would be a tentative establishment of a prophylactic depôt and the cost of the same for males.

For a double shift of six hours twice daily, say, from 6 a.m. until noon and from 6 p.m. until 11 p.m. or midnight, there would be required one clerk to take records and fees and two trained men to carry out the treatment for each shift. The basic wage in this State would operate, therefore, each shift would cost in salaries £12 15s., or for the two shifts £27 10s.. Rent, drugs, cotton wool, gloves, insurance, depreciation and sundries from £15 to £20 per week, making a total of, say, £50 per week, or £2,600 *per annum*. A nominal charge should be made to all candidates for prophylactic treatment, as we in the profession know that the average member of the public holds in little value gratuitous treatment. Every endeavour should be made to render these depôts self-supporting and not a drain on the moneys voted by the State legislature for hospitals and charities.

Every endeavour should be made to eliminate from the depôts men suffering from venereal diseases. It would be advisable that the depôts should be established in the vicinity of the central police station, so that the public could quickly locate them and also if the small staff were annoyed by disorderly individuals, the means of calming the latter would be at hand.

When the economic loss to the State is considered on account of venereal diseases affecting members of the community, through loss of work, apart from the direct loss of money and time to the patient himself, it must be recognized that prophylactic depôts would effect a large saving to the State, while preserving the health of the male and to some extent of the female as well. In this country we have had all sorts of freak legislation. I submit that the question of these prophylactic depôts should be

brought under the notice of the health authorities. This is a young country and we do not want to wait for a lead from the old world in these matters. We should strike out fearlessly for ourselves and for the members of our community. We have given the old way a good long run and the results are too well known to all of you. Having in view the successful fight in combating a number of contagious and infectious diseases by the methods of modern preventive medicine, we have achieved definite results. It can and must be done also with venereal diseases.

#### PROPHYLAXIS IN VENEREAL DISEASES.<sup>1</sup>

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THERE is little need to speak of the seriousness of venereal diseases. Syphilis ranks high, perhaps third, in the list of killing diseases; gonorrhoea is not a fatal disease, but is much more prevalent than syphilis. These diseases are largely responsible for sterility, still-births, blindness, insanity, etc., and, in addition, cause more unhappiness and mental distress than any other diseases. In spite of what is being done to fight them, venereal diseases are on the increase; figures in England show an increase since the armistice. In Sydney, despite increased facilities, the hospitals are quite unable to cope with the numbers of patients seeking treatment, while the country districts, hitherto comparatively free, are no longer so. What is being done to fight this scourge? In most of the States there is a *Venereal Diseases Act* more or less similar to the New South Wales Act. This New South Wales Act has never had a fair deal; two years elapsed before it was nominally applied, during which time practically nothing was done to provide the facilities for its requirements. It has not failed; it never had an opportunity to succeed and it now lies moribund. Let us hope that it will sooner or later be resurrected and improved and given an active part in the campaign.

Early and efficient treatment and a high standard of cure play a very important part in the fight and it is in this connexion that the *Venereal Diseases Act* could greatly assist. Treatment is on a much better basis now than a few years ago and many general practitioners are developing modern methods and thus will result surer cures and fewer relapses. The importance of early treatment in both syphilis and gonorrhoea cannot be too strongly insisted upon. Sound treatment is an important factor in the attempt to eradicate venereal disease and full opportunity should be afforded general practitioners to master modern methods.

Various societies are doing good work directly or indirectly in fighting venereal disease; any agency having for its object the moral and physical betterment of the people, assists. In several States

branches of the British Society for the Prevention of Venereal Disease are now being formed, Sir James Barrett taking an active part in their formation. In this State there is the University Society, also the Society for Fighting Venereal Disease has lately been founded and, in addition, many of the churches have committees to deal with these matters. All these bodies are doing necessary work in educating the people in sex and venereal matters. Much more remains to be done in the way of education of the people and especially of the youth. Everyone should know that sexual continence is quite compatible with perfect health, that venereal diseases are prevalent and serious and that serious risks to those indulging and to others attend illicit intercourse. This instruction cannot be left to parents; diffidence and ignorance render them unsuitable; it must be taught to youths of suitable age at school. Thus informed, many will avoid the perilous path. Still, in spite of knowledge, risks will be taken. Again, no amount of talking will prevent older people who are set in their ways, from following their bent. These people must be saved from the consequences of their folly, if not for themselves, at any rate for the sake of innocent people who may be infected through them and more for the success in the fight against venereal disease. It is here that prophylaxis, used in its narrower sense, finds its sphere. It is the new weapon which, if properly and generally used, will, in conjunction with the other weapons, win the fight against venereal disease and turn defeat into victory.

What is prophylaxis? It is the chemical disinfection of the sexual organs after coitus, any infection lodged there by that coitus being killed, so that no disease results. Prophylaxis in women, for anatomical reasons, does not offer the same prospect of success as in men; still, if the incidence in men be reduced, a like result must follow in the case of women. Prophylaxis may be self-administered (the means being supplied in packets) or preferably administered at suitable depôts by trained persons under medical supervision, the only disadvantages against the latter method being the delay and cost.

There is no doubt as to the efficacy of prophylaxis if properly applied. For proof of efficiency, I would refer to Norris's statement of results in the American Navy and to Sir Archdall Reid's book, "Prevention of Venereal Disease." The medical journals also for the last few years abound with experiences favourable to prophylaxis. In my own experience I have never known prophylaxis to fail. Even the National Council for Combating Venereal Disease, which all along has been bitterly opposed to the general adoption of prophylaxis, admits its value in a memorandum unanimously adopted, which states: "It is no part of our policy to conceal the truth, and we have always acknowledged the value of cleansing and disinfecting materials applied early and thoroughly in diminishing the risk of disease."

The Society for the Prevention of Venereal Disease, which, since its inception has advocated prophylaxis as the sheet anchor in the campaign against venereal disease, states: "We definitely affirm and

<sup>1</sup> Read at a meeting of the New South Wales Branch of the British Medical Association on October 29, 1921.



are prepared to bring conclusive evidence as to the efficacy of immediate self-disinfection in the male as a prevention against venereal infection and the possibility of almost eradicating these diseases by this means." In spite of the evidence of the efficacy of prophylaxis in preventing venereal disease, there has been, nevertheless, much opposition to its adoption mainly upon moral grounds, the objectors urging that, by protecting a person against venereal disease, we would condone his act and encourage him in his wrongdoing. I do not think this objection should stop us; our main object is to put down venereal disease; other methods have failed; prophylaxis, in conjunction with the other methods, promises success. Let us try for success; let us not be hindered by moral doubts, but use every likely weapon to deal with this invasion. It is only by doing our best along all lines of attack that we can hope for victory. This meeting should not end in words only. I would suggest that a committee be appointed to draw up a report as to the best steps to be taken to deal with the venereal disease menace and to report to the Council with a view to action being taken.

#### A NOTE ON THE FAILURE OF TARTAR EMETIC IN THE TREATMENT OF TWO CASES OF HYDATID DISEASE.

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THE remarkable results obtained by Christopher-son<sup>(1)</sup> in the treatment of bilharziosis with tartar emetic led to the hope that intravenous medication with this drug might be applicable to other helminthic infestations, such as filariasis and echinococcosis. These possibilities were discussed in previous publications.<sup>(2)</sup> Certainly the anatomical location of the parasites are not identical in these three diseases. In bilharziosis the adult worms live only within the vessels; in filariasis, while the embryos are located there the adult worms are frequently situated in the lymphatic glands. On the other hand, the echinococcal cyst is found embedded in the tissues of the host, but is separated therefrom by a fibrous adventitia.

In connexion with hydatid disease, it has to be

remembered that, even if drug treatment were successful, the degenerating cyst might suppurate. In such a case intravenous therapy would precipitate surgical intervention rather than prevent it. *Post mortem* evidence at the Melbourne Hospital shows that about 30% of hydatid infestations undergo spontaneous degeneration and natural cure. It would appear, therefore, that, provided septic foci and potential sources of bacteriemia received attention, such complications might be avoided.

The three essential requirements if drug treatment is to establish a satisfactory cure for human echinococcosis are that:

- (1) The drug must exert a lethal action on the parasite.
- (2) The drug must be able to traverse the connective tissue barrier—the adventitia—in a sufficient concentration.
- (3) The dying cyst should not suppurate.

Regarding the problem of the permeability of the adventitia, it must be assumed that in the living cyst there is a continual interchange of materials between the blood vessels of the adventitia and the cyst contents. The parasite receives both its oxygen and food supply from the vascular system of the host, while the presence of immune body in the blood of human beings infested with hydatid suggests that echinococcal products escape into the circulation.

Serious consideration should be given to the question of whether some anthelmintic of small molecular structure can traverse the adventitia, poison the parasite and set up that series of degenerative changes which is so often seen at autopsy to have culminated in natural cure.

From this point of view I am recording two cases of hydatid disease treated with tartar emetic administered by the intravenous route. No evidence was obtained that any beneficial results had ensued.

(1) After a full course of treatment, operation in Case No. 97 revealed a living hydatid cyst of the liver containing clear fluid and undegenerate endo-cyst and daughter cysts.

(2) Chemical analysis of the cyst walls showed no trace of antimony, though 0.15 gramme (2½ grains) had been administered intravenously six hours before operation and a total course of 1.5 grammes (25 grains) had been given during the preceding month.

(3) In both cases the complement fixation reaction remained unmodified.

Protocol No. 1.—The Salient Features of the Two Treated Cases.

	Site of Cyst.	Tartar Emetic.	Second Operation.	Chemical Analysis of Contents	Complement Fixation Test.			Casani's Reaction.
					Before Treatment.	After Treatment.	After Second Operation.	
Case No. 97 <sup>1</sup>	Tumour of liver	1.5 grammes	Living hydatid of liver	Negative	Positive	Positive	Absent	Strongly positive
Case No. 22 <sup>1</sup>	Not located (?) liver	1.5 grammes	Nil	Nil	Positive	Positive	Nil	Strongly positive

<sup>1</sup> Both these patients had been previously operated on for hepatic hydatid cysts.



In the case in which operation was subsequently performed a strong positive reaction was converted into a negative result by operative intervention. The other case presented a strong complement fixation test fifteen months after a full course of treatment.

These observations indicate that there is little likelihood of tartar emetic proving an effective anthelmintic for the encysted stage of *Tenia echinococcus*. The drug in these cases appears to be unable to traverse the adventitia in sufficient quantity either to be detected chemically or to exert any lethal effect on the parasite.

The main features of the two cases are incorporated in the accompanying protocol, while the details are to be found in the case histories below.

#### Case Records.

CASE No. 97.—Male, aged 27 years, was admitted to hospital on September 9, 1921, complaining of pains in the stomach for the past six months and occasional pain in the right shoulder.

#### Past History.

Eighteen months previously he had been operated on for a single hydatid cyst of the liver and had been in hospital for twenty-three days. Reference to the hospital records showed that the patient had then presented a large round mass over the gall bladder area, which was dull on percussion and moved with respiration. There were also physical signs at the right base posteriorly.

#### Present Examination.

On physical examination the abdomen moved well with respiration. There was no rigidity, but slight tenderness was noted on pressure over the upper right rectus—the site of the previous operation. There was a definite irregularity in the lower margin of the liver, which was situated one finger's breadth below the costal margin. X-ray examination showed some doubtful increase in the convexity of the right hemi-diaphragm in the lateral half. The lower border of the liver could not be accurately defined. The radiologist recommended re-examination after an artificial pneumo-peritoneum had been induced. The complement fixation reaction for hydatid was strongly positive.

It was decided to treat the patient with tartar emetic. In all 1.5 grammes (25 grains) of this drug were administered intravenously from September 17, 1921, to October 15, 1921. In all, thirteen injections were given, starting with 0.03 gramme (0.5 grain) and increasing the dose gradually to 0.15 gramme (2.5 grains).

The clinical condition and the complement fixation reaction remained unmodified.

Surgical intervention was decided upon. On the morning of operation 0.15 gramme of tartar emetic was administered (the last injection of the series, October 15, 1921) and about six hours later laparotomy was performed by Mr. Zwar. The liver was found to be enlarged downwards and an absolutely healthy hydatid cyst containing three daughter cysts was demonstrated. None of the hydatid elements showed any tendency to degeneration.

Careful chemical analysis of the endocyst and daughter cysts failed to reveal even a trace of antimony, though a large intravenous injection of tartar emetic had been given six hours previously and a total of 1.5 grammes during the preceding month.

The patient made an uninterrupted recovery. He returned to hospital nine months later for investigation. He was then feeling perfectly fit. His blood failed to give a complement fixation reaction. The Casoni test yielded an intensely positive result. Following the intradermal injection of 1 c.cm. of hydatid fluid, the arm, within twenty-four hours, became reddened, hot and swollen. In forty-eight hours the inflammation had spread until the whole of the upper limb was involved from the shoulder to the hand. The skin was reddened and infiltrated, while there was also a peculiar diffuse puffiness, apparently due to a reaction in the subcutaneous tissues. Slight systemic dis-

turbances were noted. In five days the whole condition had subsided.

CASE No. 22.—Male, aged 35 years, was an inmate of the Mont Park Asylum. He was readmitted to hospital on July 8, 1920, for investigation and treatment.

#### Past History.

On October 29, 1919, some nine months previously, this patient had been admitted to the Melbourne Hospital with severe pain in the upper part of the abdomen lasting three days. He was slightly jaundiced and suffered from several rigors. Examination showed the liver to be enlarged downwards about four fingers' breadth below the costal margin, also upwards in the axilla. Mr. Zwar operated two days later, resecting portion of the eighth rib in the mid-axillary line and draining a suppurating hepatic hydatid cyst by the transpleural route. The patient made an uninterrupted recovery.

#### Present History.

Since the operation his attendant informed me that the patient's condition was greatly improved, but that on one occasion he had suffered from an attack of acute abdominal pain and jaundice.

Examination of the abdomen and chest revealed no localizing signs of hydatid.

The complement fixation reaction was strongly positive. The differential count showed 1% of eosinophile leucocytes.

X-ray examination demonstrated "great thickening of the right basal pleura, with obscuring of the right diaphragm, which was apparently in normal position."

Under general anaesthesia Mr. Zwar needled the chest wall in several places, but no cyst was tapped.

From July 15, 1920, to August 18, 1920, fourteen injections of tartar emetic were given intravenously. The initial dose was 0.03 gramme (0.5 grain). Injections were given on alternate days and the amount was increased by 0.03 gramme until 0.12 gramme was reached. A total course of 1.5 grammes was given.

Subsequently the patient was discharged from hospital, but for the past fifteen months he has been under close scrutiny. On five consecutive examinations the serological test has been consistently positive and on the last occasion (November 1, 1921) the Casoni reaction was also investigated. A strong reaction followed the intradermal injection of 1 c.cm. of sterile hydatid fluids. Controls were negative.

There can be no reasonable doubt that this patient is still absorbing antigen from some inaccessible, deeply situated cyst and that a full course of tartar emetic entirely failed to cause its degeneration and death.

#### Discussion.

The problem of the permeability of fibrous tissue to drugs is an extremely important one, inasmuch as so many parasites and their ova stimulate the tissues of the host to form this natural barrier. This conservative process, though of great advantage to the host in limiting the deleterious action of the parasite, materially increases the physician's difficulty in effectively treating these diseases.

The failure of tartar emetic to permeate the fibrous adventitia in hydatid disease increases the difficulty I have always experienced in accepting Christopherson's view that in bilharziosis tartar emetic acts primarily on the ova. These are, for the main part, extra-vascular collections located in granulation and fibrous tissue barriers in the walls of certain hollow structures like the colon and bladder. Elsewhere evidence<sup>(3)</sup> was adduced that the primary lethal action was exerted within the vascular system on the adult schistosomes, which would immediately cease depositing ova in the tissues. Any lethal action of the drug on ova would appear to be confined to those recently deposited and unpro-

tected ova which are actually traversing the walls of the viscera at the time of drug administration.

The problem is more than one of mere theoretical interest. The principle involved is not so much one of selective drug action, but rather whether a given drug can get through a relatively vascular fibrous tissue barrier in adequate concentration. In regard to bilharziosis there is little use in carrying the discussion further. It can only be solved by research workers in Egypt investigating the exact mode of action of tartar emetic on a series of experimentally infected monkeys. The solution of this problem may exert far-reaching effects on the treatment of other helminthic infestations.

#### Acknowledgments.

I am indebted to Mr. B. T. Zwar, M.S., for permission to treat these cases and to Dr. S. W. Patterson for undertaking the chemical analysis of the cyst contents for antimony.

#### References.

- <sup>(1)</sup> J. B. Christopherson: *The Lancet*, 1918, II., page 325; also *The British Medical Journal*, December 14, 1918, and 1919, II., page 494.
- <sup>(2)</sup> N. H. Fairley: *THE MEDICAL JOURNAL OF AUSTRALIA*, March 12, 1921.
- <sup>(3)</sup> N. H. Fairley: *Proceedings of the Royal Society of Medicine*, 1919, Volume XIII., pages 1 to 18.

## Reports of Cases.

### TWO CASES OF PLACENTA PRÆVIA.<sup>1</sup>

By J. L. T. ISBISTER, M.B., B.S. (ADEL.),  
Honorary Gynaecologist, Royal North Shore Hospital of  
Sydney.

PLACENTA PRÆVIA is not a complication of every-day occurrence. Yet it is of interest to many of us, because we may suddenly and unexpectedly have to face it at any hour of the day or night on our own responsibility, without the opinion of another doctor to help us. Moreover, it is necessary that we act quickly.

The uterus with placenta *in situ* which I show, was removed after death from a patient who died of *placenta prævia*. She was a multipara and was comparatively young. The history was that at full term she had slight labour pains and was bleeding off and on to a small extent for half a day, when there came a sudden and severe gush of bright red blood, followed at irregular intervals by more blood. This frightened everybody and the husband rushed off for the doctor, whose services the patient had all along refused to have. A doctor could not be immediately found. When the doctor arrived he plugged the vagina firmly and dispatched the patient to hospital in an ambulance. On the way further hæmorrhage occurred and the patient was admitted in a moribund condition. Dr. H. Leaver hastily pulled down a foot to stay the bleeding, but the patient was so exhausted and drained of blood that she died ten minutes later. A truly tragic and sudden end to a young mother of three small children!

The specimen is one of partial *placenta prævia* and the flap of separated placenta overlies the os. The diagnosis in such a case is easy. There is the history of hæmorrhage and a vaginal examination settles it beyond doubt.

Pulling down a leg is the best and most rapid treatment possible. The sooner it is done, the better, provided the size of the os permits of this treatment. Had the patient been seen earlier, it would have been possible to

insert a de Ribes's bag, which would control the hæmorrhage and at the same time induce dilatation and labour. A Cæsarean section would have given an equally good result.

The second case, which occurred within a few days of the first, was also one of *placenta prævia*, but of a different type. The patient was under the care of Dr. R. S. E. Todd, who made a diagnosis of probable *placenta prævia*. The patient was at full time. In the course of a week there had been two slight hæmorrhages and on examination I could feel a roughened, coarse membrane across the os, through which I dared not force a way. No pulsation could be felt in this obstructing mass. The presentation was apparently vertex in kind. The os was the size of a shilling. The patient was not in labour.

I had the choice of three methods of delivery: (i.) Digital dilatation and podalic version by bringing down a leg. This had little to recommend it. (ii.) Digital dilatation and the use of a de Ribes's bag. With a dilated os or even with an easily dilatable os, either of these methods is practicable and both of these ways of delivery are quite justifiable in emergency when the obstetrician is called to treat heavy hæmorrhage. But in the case under consideration there was no hæmorrhage and at the same time no labour. It takes a great deal of courage to essay such a difficult and uncertain job. It might be the right and only course to pursue if the patient were far removed and the doctor unable to obtain an assistant. (iii.) The remaining alternative was Cæsarean section and in reality in this instance it was much the easiest and safest, both for the mother and the child. The placenta was centrally situated over the os.

The mother made a good recovery and the child, which was a delicate, full-term infant, might easily have been lost, had there been the least difficulty or delay in delivery.

The sad thing about the first case is that the mother and her infant might have been alive if she had only engaged a doctor to attend her and even if she had allowed her husband to send for a doctor when the first sign of hæmorrhage appeared.

Truly, as an old writer has said: "Death borders on our birth."

### FOUR CASES OF AMŒBIC DYSENTERY.

By H. C. COLVILLE, M.B., M.S.,  
Hawthorn, Victoria.

IN view of Dr. Dew's report of two cases of amœbic abscess of the liver and his comments on the rarity of amœbiasis in persons who have not been outside Australia, the following cases may be of interest:

C.J., a young man, aged 20, came to me on August 18, 1920, complaining of chronic diarrhœa which had been present for two and a half years. There had been no intermissions since the onset, the diarrhœa being continuous, with frequent motions during the day and often several at night, so that sleep was much interfered with. The patient stated that the motions varied in consistency from a practically normal stool to almost pure mucus and blood, according to the severity of the diarrhœa. He complained of some colicky pain in the abdomen, chiefly on the left side, but otherwise felt quite well. He had lost a little weight at the onset, but had subsequently regained it. He had never had any serious illnesses in the past. On examination I found a fine strapping youth, looking a picture of perfect health. The heart, lungs, abdomen and nervous system were all found to be normal. An examination of the rectum with the proctoscope revealed a slightly congested but otherwise normal mucosa. Dr. Trinca examined a specimen of the fæces for me and reported that culture yielded no dysenteric organisms, but that under the microscope there were a few forms seen which suggested amœbæ; they were not in sufficient numbers to enable their nature to be determined with certainty. On further questioning the patient I discovered that two and a half years previously, when the diarrhœa started, he had been staying with him a returned soldier, whom he believed to have suffered from dysentery in Egypt. On the strength of this and as the patient had already been tried on nume-

<sup>1</sup> Read at a meeting of the British Medical Association held at the Royal North Shore Hospital of Sydney on October 14, 1921.

rous methods of treatment before he came under my care, I decided to try the effect of a course of emetine. He was given emetine hydrochloride, 0.06 gramme (one grain) hypodermically every day for ten days and at the same time took a mixture containing 3.8 grammes (60 grains) of magnesium sulphate three times a day. The result was dramatic, as the diarrhoea stopped completely after about the fourth injection.

The patient now informed me that his mother, sister and brother were all suffering from the same trouble, but that he had refrained from telling me this until he "saw how he got on." I found that these three had all suffered for a shorter time than the first patient, in the mother's case for only six months. None of them had ever been outside Australia. They were all given the above course of treatment and all lost their diarrhoea completely.

The subsequent history of these patients would take too long to describe in detail, but the outstanding features are these:

Subsequent examination of the faeces of two of the patients by the Walter and Eliza Hall Institute revealed *Entamoeba histolytica* in large numbers in both cases.

The mother alone has remained quite well since her course of emetine over a year ago and appears to be permanently cured. The others have all relapsed after varying intervals of freedom from diarrhoea and have all had temporary relief from further courses of emetine; the original patient has had five courses hypodermically in the year and is still uncured.

It is interesting to note that the only one of the four to be cured is the one in whom the infection had been of the shortest duration (six months) and that all four have enjoyed perfect and robust general health throughout, in spite of the diarrhoea. At the present time I am attempting to keep the disease in check by a course of bismuth emetine iodide by the mouth, but it is yet too early to say what the results will be.

## Reviews.

### HYGIENE.

A BOOK on hygiene and public health by Dr. B. N. Ghosh and Dr. J. L. Das<sup>1</sup> is designed on conventional English lines and covers the usual range of subjects. The text, however, is permeated with an Indian flavour. The fact of a fourth edition being required indicates a considerable demand and when a demand continues, merits must exist.

The principles laid down in regard to ventilation are based on De Chaumont's dictum that the permissible limit of respiratory impurity is 0.2 parts of CO<sub>2</sub> per 1,000. No mention is made of the work of modern investigators. Due reference is made to the importance of vitamins and a special chapter is devoted to "Diet in India." Personal hygiene, including clothing in the tropics, is treated in a brief but informative manner.

As might be expected, the authors deal with plague at more length than with other infectious diseases, but no new facts are included. The mortality statistics only cover the period from 1896 to 1909. This is a matter for comment, in view of the fact that the authors in the preface to this edition state that the work has been brought up to date. Incidentally, one learns of the manifold applications of the words "pucca" and "kutcha." Floors and walls compounded of mud and cow dung are not considered to be "pucca."

On the whole, the subjects are well arranged and the matter well written.

<sup>1</sup> "A Treatise on Hygiene and Public Health, with Special Reference to the Tropics," by Birinda Nath Ghosh, F.R.F.P. & S. (Glasg.), and Jahar Lal Das, D.P.H., with an Introduction by Colonel Kenneth Macleod, M.D., LL.D., F.R.C.S.; Fourth Edition, 1921. Calcutta: Hilton & Company; London: Simpkins & Marshall; Crown 8vo., pp. 507, with 62 illustrations. Price: 6 rupees, or 9s. 6d. net.

## Analytical Department.

PARKE, DAVIS & COMPANY.

THE well-known firm of Parke, Davis & Company is usually regarded as an all-American undertaking and some colour is given to this conception by the fact that many of their products are presented to the medical profession in all parts of the British Empire in American phraseology. By far the greater number of pharmaceutical preparations of this firm offered to the medical profession in Australia, however, are compounded or manufactured in their large chemical works at Rosebery, near Sydney. These products include pills, tablets, elixirs and many proprietary preparations. In all but a few instances drugs in various stages of completeness, such as extracts, are made in the firm's factory in Detroit, United States of America, and the products are finished in Australia.

### General Arrangements.

The works at Rosebery are contained in a large brick building standing in three acres of ground. It has four floors, with a total floor space of a little over an acre. The ground floor is of concrete, while the others are of hardwood. The factory is well lighted and ventilated and the sanitary arrangements are satisfactory. The whole factory is kept in a clean and tidy condition. Detached from the main building are a large store and a power-house. The staff comprises nearly two hundred persons of a superior type. They are clean and well trained in the work they are required to undertake. The employees wear overalls and are particular concerning the condition of their hands.

There is a well-equipped laboratory and every part of the processes of manufacture is subject to chemical control. There is an excellent checking system for following the various products through the several stages of manufacture. A card is prepared in the laboratory, setting out the quantities of the different ingredients required to make up a given quantity of a product and the method to be followed in the preparation. This card bears a number and follows the product in all its stages. The number is finally inscribed on the label of the containers sent out, so that a complete record is kept of every article which leaves the factory. The card is sent to the chemical store, where the storeman weighs out the necessary quantities of the several ingredients and attaches his initials opposite each ingredient. The weighings are checked by another storeman, who also initials the card. When the goods are received by the person in charge of the particular manufacture, they are again checked and this person also initials the card. After the manufacture is complete, a sample of the finished product is sent to the laboratory, where it is compared with standard samples for appearance, taste and other qualities and, when necessary, examined quantitatively. Not until it has passed the tests is it bottled for distribution.

It is evident that throughout every care is taken to insure that the drugs used are of high standard and that the processes of manufacture and handling of the product are above reproach.

Our inspector witnessed in the course of his visits the preparation of many products and made special investigations concerning the methods employed in certain selected processes. Samples of the ingredients used in the preparations of many of these products were taken at the factory and samples of finished products were collected both at the factory and in the open market for analysis. A critical control was exercised of the composition of these products after study of the claims made by the firm in the advertisements of these remedies in the medical press.

### Milk of Magnesia.

Parke, Davis & Company's "Milk of Magnesia" is a suspension of magnesium hydroxide in distilled water. It is a thick, white, somewhat opalescent fluid. It corresponds to *magma magnesiae* of the United States Pharmacopoeia, although the method of manufacture differs somewhat from that prescribed officially.

The magnesium hydroxide is prepared by precipitating a solution of magnesium chloride by sodium hydroxide



under carefully controlled conditions. The magnesium hydroxide is washed many times by decantation, is suspended in water in a definite concentration and is sterilized by heating to 95° C. before being filled into sterile bottles.

Samples obtained at the factory and purchased elsewhere responded to all the tests of the United States Pharmacopœia. They contained 6.69% and 6.20% of magnesium hydroxide. They contained less dissolved solids than is allowed by the Pharmacopœia. There is less than 0.2 parts per million of arsenic. The most noticeable character of the preparation is the relative permanence of the suspension, in spite of the fact that it contains neither gum nor any similar substance. We find that Parke, Davis & Company's "Milk of Magnesia" is an excellent preparation and is prepared under carefully controlled conditions.

#### Aspirin.

Parke, Davis & Company manufacture many drugs in the form of compressed tablets. A typical example of this form of preparation is the five-grain (0.3 gramme) tablet of aspirin or acetyl-salicylic acid. The acetyl-salicylic acid was examined prior to compression and was found to be pure and free from salicylic acid. It is mixed thoroughly in rotating cylinders with a little starch and talc. The mixture is then moistened and the moist mass is granulated. The moist granules are then dried quickly in an oven. The powder is fed into a tablet-making machine, reserved exclusively for aspirin. The output of this machine is 360,000 tablets a day.

The tablets break up readily and quickly when placed in water. The average weight of the tablets varied from 0.4077 gramme to 0.4106 gramme. They did not contain sulphates nor heavy metals, but traces of chlorides were discovered. The acetyl-salicylic acid content of the samples collected and purchased varied from 5 grains to 5.13 grains. The ash of five tablets varied from 0.0665 gramme to 0.0668 gramme. All the tablets yielded reactions indicating the presence of traces of free salicylic acid. Since the acetyl-salicylic acid used did not contain any salicylic acid, an attempt was made to determine the stage of the process of preparation at which the acid appeared. It was found that it appeared during the process of granulation. The acetyl-salicylic acid is subjected during this process to heat and moisture for a short time and a small amount of hydrolysis takes place as a result. The amount of free acid found is so small as to be negligible. Some manufacturers add a little tartaric acid to mask the reaction for free salicylic acid.

#### Cascara Evacuant.

Parke, Davis & Company's "Cascara Evacuant" is similar in composition to the *extractum fluidum cascarae sagradae aromaticum* of the United States Pharmacopœia. They claim that it is superior to the pharmacopœial preparation. In the latter the bitter principle of the cascara is destroyed by treatment with magnesium oxide; liquorice, glycerine and some essential oils are then added. If the treatment with magnesium be prolonged, the purgative action of the cascara is reduced. It is a common practice to add other purgative drugs, such as aloes or rhubarb. Parke, Davis & Company do not destroy the bitter glucoside *in situ*, but remove it by a special process. The cascara, after having been freed of the greater part of this bitter principle, is mixed with glycerine, liquorice and essential oils, including oil of anise. A palatable preparation is the result.

The cascara is treated in Detroit and is received at Rosebery in the form of a concentrated extract. This extract is mixed with the other ingredients in the factory. The thick, dark brown fluid is allowed to stand in closed wooden vats for about two months, in order that any precipitate that may have formed, may settle. The supernatant fluid is then placed in bottles.

"Cascara Evacuant" is a clear, dark brown fluid of syrupy consistency, with a pleasant taste like that of anise and liquorice with a little bitterness added. It is not nearly as bitter as extract of cascara. It forms an efficient laxative and is pleasant to take. Even children like it.

Samples taken from the vats are indistinguishable from those bought in the open market in appearance, colour and

taste. The alcohol content was found to be 14%. The specific gravity varied between 1.088 and 1.089. The non-volatile solids represented between 29.220% and 30.905% and the ash between 2.725% and 2.876%. The presence of cascara was determined, but no other purgative drug could be detected. Oil of anise, liquorice and glycerine were recognized.

"Cascara Evacuant" is an elegant preparation, compounded with care. The claims made for this pharmaceutical preparation in regard to its laxative properties are not exaggerated.

#### Pilula Cholelith.

"Pilula Cholelith" is a large, chocolate-coated pill for which the manufacturers claim the following composition:

Acid sodium oleate .. .. .	grs. 1.5
Sodium salicylate .. .. .	grs. 1.5
Phenol-phthalein .. .. .	gr. 0.3
Menthol .. .. .	gr. 0.1

They contain a soft mass which flattens readily between the fingers and breaks up when immersed in water. The average weight of pills purchased was 0.4704 gramme and of pills obtained at the factory was 0.4385 gramme. The difference was probably due to variations in the thickness of the coating.

Analysis revealed that the pill mass contained sodium oleate, salicylates, phenol-phthalein and menthol. The sodium salicylate was estimated quantitatively. One analysis yielded 1.4 grains per pill, but at the completion of the analysis a small quantity of salicylic acid was shown to be contained in the wash water. This figure was therefore a little low. Another analysis yielded 1.56 grain per pill. Samples of the oleic acid, sodium salicylate, phenol-phthalein and menthol used in the manufacture of the pills were examined. They fulfilled the requirements of the British and the United States Pharmacopœias. The sodium salicylate was of a pinkish colour, suggesting that it was made from natural salicylic acid. Parke, Davis & Company claim that this is so.

The pills are made entirely by machinery. There is no handling at any stage of the process. The machines are in good order and are kept perfectly clean. The machine which makes the pills from the pill mass, has an ingenious arrangement, whereby only those pills which are of the correct size, can pass. The larger or smaller pills have to be remade.

The pills are coated in rotating copper vessels, which are kept clean and bright. There is very little handling during the process of bottling.

#### Pilula Alophen.

Parke, Davis & Company prepare a pill under the name of "Pilula Alophen," said to contain one-quarter of a grain of aloin, one-eighth of a grain of strychnine, one-twelfth of a grain of extract of belladonna leaves, one-fifteenth of a grain of powdered ipecacuanha and a half of a grain of phenol-phthalein. The pills are, as will be recognized, similar to the well-known compound aloin pills with the addition of phenol-phthalein. It is a small, oval pill, coated with chocolate. It consists of a mass of a very even appearance and consistency. It breaks up readily in water. The pills are machine-made and care is taken in the preparation.

The weight of the pill varied between 0.1285 gramme and 0.1391 gramme. The ash varied between 0.0206 gramme and 0.0242 gramme. The presence of the several ingredients was determined. Samples of these ingredients collected at the factory were found to satisfy all the requirements of the British Pharmacopœia.

The manufacturers make the claim that these pills have a mild, quickly acting purgative effect, without causing griping. We are satisfied that the pharmacological action is of this nature.

As far as the five preparations dealt with in the foregoing are concerned, the claims made by Parke, Davis & Company, both in respect to the reliability of manufacture and in respect to their pharmacological properties, appear to us to be fully justified.



## The Medical Journal of Australia

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### A Retrospect.

#### Pathology.

THE confines which limit the subject of pathology become more and more extensive as the years go by. It was on their knowledge of general pathology that clinicians relied before the days of Virchow, but with the advent of this keen observer and the establishment of cellular pathology, our knowledge of the minute effects produced in the organs by various morbid conditions was greatly advanced. Not many years elapsed before Pasteur and his contemporaries made bacteriology loom large on the scientific horizon and the influence of their discoveries in the realms of industry, commerce and hygiene have been and are of incalculable value. Of more recent years the bio-chemist has entered the arena to aid in the elucidation of problems presented by many obscure diseases which have hitherto resisted all the endeavours of the bacteriologists to fathom.

In the investigation of such diseases as nephritis the bio-chemist has been of considerable help to the physician and as a result of renal efficiency tests much progress has been made in this field of clinical medicine. The estimation of sugar, urea, non-protein nitrogen, etc., in blood is becoming more and more essential to the clinician and it is gratifying to see that in most of the larger Australian hospitals facilities for performing these tests, as a matter of routine, have now been made available.

The Wassermann test has long been accepted as a valuable aid in the diagnosis of syphilis, but the technical difficulties which complicate the test, have induced investigators from time to time to evolve procedures which will be simpler and at the same time no less reliable than the original Wassermann technique. One of the most recent of these is the flocculation reaction of Sachs and Georgi. R. D'Annoy has made a comparative study of this test and of the original Wassermann reaction and ob-

tained identical results in 98.07% of tests. He considers that, owing to its simplicity and apparent reliability, the precipitation test proposed by Sachs and Georgi for the serum diagnosis of syphilis is a valuable addition to laboratory methods.

Conflicting opinions have been published frequently in regard to the Wassermann reaction in malaria, but J. P. Johnson states that these may arise from the variable conditions under which the test is carried out. The results of his investigations indicate that the blood in active benign tertian, malignant subtertian and mixed benign tertian and malignant tertian forms of malaria does not yield the Wassermann reaction.

The cancer problem has not been investigated recently to the same extent as it was a decade ago, for during past years an enormous amount of work has yielded very little information of value. Ford Robertson still maintains that carcinoma is an infection. He has found rod-shaped bodies in cancer cells and he considers them to be a stage in the life-history of a carcinomatous organism. J. A. Murray and other recognized authorities do not believe that the rod-like structures described by Robertson are bacteria. A. Paine thinks that cancer is not a specific disease due to the activities of a special parasite, but that it is due to a disordered growth of epithelium caused by various physical or chemical irritants, the most important being the toxins of micro-organisms. In view of these divergent opinions, the cause of cancer must be regarded as still wrapt in obscurity.

At the Rockefeller Institute Alexis Carrel has continued his investigations on the cicatrization of wounds. Working on dogs, he found that in wounds protected by a connective tissue dressing against mechanical, chemical and bacterial irritations, no evidence of cicatrization was found. There is no doubt, he says, that the mechanism of regeneration is not set in motion at the usual time, when all external irritants are suppressed. It appears, therefore, that, under ordinary conditions, cicatrization is not initiated by an internal factor. It seems that this mechanism of regeneration has become adapted to the ordinary conditions of life of the animals, so that a small wound will begin to cicatrize sooner if slightly infected, as practically always happens,

than if it were thoroughly protected by a non-irritant dressing.

The differential diagnosis of diseases in which general enlargement of lymphatic glands is a striking feature, continues to be difficult and this is so because the ætiology and pathology of these morbid conditions have not been clearly elucidated. T. L. Webster has studied a large series of these cases at the Johns Hopkins Hospital. It seems probable, he thinks, that lympho-sarcoma, lymphatic leuchæmia and leuco-sarcoma are different manifestations of the same disease, for which he suggests the term "lymphadenosis, leuchæmic or aleuchæmic." According to Webster, the disease is not a neoplasm, but a direct response on the part of the lymphocytes to a chemiotactic influence exerted by the disease-causing agent, which so far has escaped detection. Hodgkin's disease or lymphadenoma is regarded by Webster as a distinct entity. At the same institution, T. P. Sprunt and F. A. Evans had recently described, under the heading "infectious mononucleosis," a disease in young adults which in the early stages closely simulates lymphatic leuchæmia. For the first few days in their cases the total white blood cell count was normal or only slightly increased; then followed a leucocytosis of from thirteen to twenty thousand cells to each cubic millimetre. The percentage of mononuclear cells in several instances at times reached seventy, or even seventy-five. There is nothing distinctive in the changes in the lymphatic glands beyond a rather definite hyperplasia of the lymphoid cells. The differentiation for a beginning leuchæmia may be difficult. In leuchæmia, however, with a low general leucocyte count, more marked anæmia, a tendency to hæmorrhage and many fragile cells in the blood smears are usually present. The cells which are not fragile are often normal in appearance, or, if not normal, all of the same variety, while in the case of infectious mononucleosis there is a diversity of types.

In spite of much work, the ætiology of *encephalitis lethargica* remains obscure. The relation of the disease to polio-encephalitis has not yet been definitely established, but the tendency is to regard them as closely related, though not identical. De Fano has described "minute bodies" in the nerve cells of the pons, medulla and elsewhere. The same

appearances were observed by him in monkeys. He has also found similar bodies in the salivary glands and leucocytes and some free in the tissues, which appeared to be the same as those found in the central nervous system. A. F. B. Shaw states that he also has found these "minute bodies" in the central nervous system of human beings after death. However, until further confirmatory observations are forthcoming, these statements must be accepted with reserve.

War experience with the dysenteries has been used to advantage in studying infections of the alimentary tract in civil life. Patterson and Williams, in Melbourne, have demonstrated organisms of the Flexner-Y ground in the stools of many adults said to have colitis and also in some specimens obtained from children suffering from entero-colitis. H. R. Dew and N. Hamilton Fairley, as the result of investigations in the same field, are of the opinion that clinicians in Australia can no longer afford to remain content with the simple clinical diagnosis of colitis. They must go a stage further in consultation with the pathologist and investigate the various ætiological agents causing the group of enterocolonic diseases. They suggest that every acute infection of the large bowel in the adult accompanied by febrile manifestations should tentatively be diagnosed as bacillary dysentery and treated as such until clinical and laboratory investigations have disproved the validity of the provisional diagnosis.

The most profitable of the few investigations made on the exanthemata are those of F. G. Blake and J. D. Trask, who injected intratracheally into monkeys unfiltered naso-pharyngeal washings from cases of measles in the pre-eruptive and early eruptive stages of the disease. A constant group of symptoms was produced which closely resembled those of measles in man. A variety of organisms largely saprophytic was present in the material inoculated, but these organisms were probably not responsible for the reaction, since the same group of symptoms was induced in two monkeys by the intratracheal injection of washings from the naso-pharynx of children suffering from measles after the fluid had been passed through Berkefeld N filters. The histological appearances of the lesions

of the skin and buccal mucous membrane of monkeys experimentally infected with the virus of measles are essentially identical with the corresponding lesions of measles in man. The reaction was successfully transmitted from monkey to monkey; no visible growth was obtained from the blood during the incubation period and during the course of the reaction. In a subsequent series of experiments it was found that experimentally produced measles in the monkey, like measles in man, is followed by an acquired immunity against the disease.

The treatment of "carriers" of organisms that are responsible for infective diseases, has long been a difficult problem. For some years many authorities have regarded isolation of "carriers" of meningococci or organisms closely related to Weichselbaum's coccus as unnecessary. The "carriers" of diphtheria bacilli also seem likely to fare better in the future than they have in the past. Moss, Guthrie and Gelien consider that the "carrier" of avirulent diphtheria bacilli is not a menace to the community. They contend that a positive throat culture, an elevation of temperature and a pathological throat condition without definite membrane formation are insufficient evidence on which to base a diagnosis of diphtheria with entire certainty. They state that virulence tests are necessary to avoid the infliction of needless hardships on carriers of avirulent diphtheria bacilli.

The question of mutation changes in bacteria is of great interest, not only to the bacteriologist, but also to the general biologist. R. R. Mellon has presented evidence that the series of changes occurring in a non-granular diphtheroid, beginning with granule formation and ending with the formation of giant cocci of very diverse morphology, is of greater significance biologically than is implied by the term pleomorphism. Mellon thinks that it may be possible later to formulate a theory of mutation. This is of particular interest as occurring in an asexual organism. It would seem probable, he thinks, that our conception of bacteria in relation to disease may undergo important modifications by reason of the repudiation by general biologists of Darwin's conception of the mechanism by which evolution is actually effected.

#### Neurology.

Among neurologists no work has attracted more attention during the year than that on aphasia by Henry Head, of London. It consists of an examination on special lines of a series of cases in young adults (war sufferers), as distinguished from the usual more or less senile subject, and is supplemented by a searching review of the subject. Head is one of the few who have read the whole of the late Hughlings Jackson's published papers on aphasia and grasped the meaning of the contained doctrines. To these he bids us apply our minds anew. He admits that his own writings have little practical value for the physician; they undoubtedly have other value, however, even inasmuch as they emphasize the neglected truism, that speech demands the integration of a number of functions and it is necessary to determine first what function is disturbed before putting forward views concerning the productive lesion. To the confusion of the exact localizer and the diagrammatist he writes: "We should as soon expect a special centre for eating as for speech."

A new view of the pathogenesis of disseminated sclerosis has evoked interest, certain continental observers (Kuhn and Steiner and Marinesco) stating that a spirochaete is the responsible agent. English observers, however, are sceptical. Birley and Leonard Dudgeon (London) have failed to find the spirochaete and maintain that the clinical and histological evidence is overwhelmingly in favour of the view that the underlying process is inflammatory in character. Gye, another London observer, also finds no spirochaete, but takes the stand that a filter-passing virus in the cerebro-spinal fluid is the causal factor.

The help of radiography in neurological diagnosis has received further demonstration. A. Rossavilla, of Padua, writes on sacralization of the fifth lumbar vertebra, which occurs in some measure in 4% of all persons, yields a striking butterfly-like X-ray picture and by pressure on the fifth lumbar root chiefly may occasion lumbago and sciatica-like signs. Percy Sargent (London), in a long paper on cervical ribs, shows that the form most often calling for operation is an abnormally large, non-jointed process continued downwards as a dense fibrous



band, to be attached to the first thoracic rib. The use of ventriculography in the diagnosis of brain tumours calls for reference. Introduced by Dandy (America) it consists of the withdrawal of ventricular fluid and its replacement by air, when a skiagram will outline the ventricles and show displacement, if a tumour be present.

In the treatment of epilepsy there has been a return to the use of borax—a recommendation of the late Sir William Gowers—Marie, of Paris, advising boro-tartrate of potash and others biborate of sodium.

On the subject of *encephalitis lethargica* many reports have been issued. They deal mainly with sequelæ; and, finally, the year has produced the usual crop of papers on meningitis, syphilis of the nervous system, nervous endocrinopathies and psycho-therapy.

#### Orthopædic Surgery.

Reconstructive procedures have occupied a prominent position in the literature of orthopædic surgery during the past year. Royal Whitman has devised a new method of relieving the disability at the hip joint caused by the loss of the head of the femur. This consists in cutting through the base of the trochanter in an oblique direction corresponding to the angle of the neck of the bone and then shaping the femur so that the newly fashioned upper end fits comfortably in the acetabulum. F. H. Albee has described two methods of dealing with the deformity resulting from the loss of the head of the humerus. In the former he replaces the lost portion of the humerus by a graft from the head and upper portion of the fibula. In the event of widespread loss of muscles, arthrodesis in a suitable position is attained by building up the humerus by means of tibial grafts to join up with the scapula.

In bone grafting there is a growing tendency to regard the massive graft fixed in place with bone screws as the most reliable means of bridging bone defects. Regeneration occurs last in the centre of the graft and if the mineral structure of the bone is not strong, the smallest strain will lead to fracture.

During the later stages of the war a bewildering medley of modes of treatment arose to meet the

almost infinite variety of fractures. There is now a reactionary demand for simpler methods. In this connexion the simplest apparatus, Thomas's splint, continues to gain favour, even for the most unpromising fractures, such as that of the femur. The results obtained with Thomas's splint compare well with those of all other methods, with the single exception of open operation. The majority of surgeons with large experience of the treatment of fracture now recognize that beef bone plates and applied screws in open operation have rendered the technique more difficult, but have reduced the complications during convalescence.

Fred. D. Bird has recently made an interesting and valuable contribution to the surgery of the knee joint. He draws attention to the lesser forms of disability which are usually found in association with laxity of the ligaments. The razor-like edge of the meniscus may become damaged and thickened by lateral movement of the knee joint. This leads to disability and limitation of movement.

Robert Patek has attacked the hypothesis that arthritis may arise from static deformities. He bases his conclusions on the evidence afforded by the examination of skiagrams. He finds that arthritis is no more common in the presence of static deformities than in persons whose limbs and posture are apparently normal.

The operative treatment of recurrent dislocations of the shoulder joint has gained many fresh advocates during the year. A flap of the deltoid muscle can be made to support the weakened capsule and to remove the tendency of this easily produced and crippling deformity.

One branch of orthopædic surgery that has lacked adequate recognition and that has even met with opposition from inexperienced practitioners is tendon transplantation. Opinions expressed in public have given rise to the impression that the procedure is unreliable. By following the well-established technique, excellent results are obtained. H. R. G. Poate's interesting and instructive paper published in this journal demonstrates the improvement in the function of practically useless limbs by carefully planned operations and efficient after-treatment.

The surgery of paralysis has received an impetus

from a suggestion made by Professor H. G. Chapman. His proposal was to utilize the fact that in the regeneration of divided nerves, the new fibres grow indiscriminately along all the bundles. When a muscle is paralysed, he would cut through the nerve supply of the whole group. The regenerating fibres would grow down the degenerated tracts as well as the healthy one, some crossing to occupy sheaths previously containing nerves leading to the paralysed muscle. This has the effect of disturbing the nerve pattern, but in certain situations there may be a distinct gain. N. D. Royle has been able to demonstrate recovery in the *tibialis anterior* in two instances after prolonged periods of paralysis. This operation has proved that degenerated muscles can recover their function, provided that a nerve supply can be provided.

The Medical Research Council has issued a special report of a committee of experts on the diagnosis and treatment of peripheral nerve injuries. This report contains much valuable material.

#### Ophthalmology.

Perhaps the most important communication during the year is a report by I. Barraquer of a new method of extracting the cataractous lens in its capsule. The instrument which he uses, is essentially a small cup on a handle which is capable of grasping the lens by means of a vacuum created by a motor. The eye is very thoroughly anaesthetized and the pupil dilated. No speculum is employed, the upper lid being held up by a Desmarre's elevator and the lower held down by the assistant's thumb. The section involves four-fifths of the cornea. The cup is inserted into the anterior chamber, slipped along the surface of the lens and below the lower edge of the iris. The operator presses a button, which starts the motor and produces a vacuum in the cup, whereby the lens is gripped and caused to vibrate and the zonular fibres ruptured. The cataract is then drawn out, still adhering to the cup. It will be interesting to hear the results obtained by other operators with this method. Arnold Knapp is a warm advocate of the intracapsular extraction, but he makes the proviso that the force used should not be applied externally to the cornea, as in Smith's method. He has been using for some years Kalt's capsule forceps to dislocate the lens without rup-

turing the capsule and has succeeded in a large percentage of the cases. The subsequent extraction then follows the Smith technique. He ventures a tentative prophecy that Barraquer's method may be the solution of the problem. A succession of new operations "for drainage of the diseased lachrymal sac may be taken as evidence that the ideal procedure has not yet been found. The venue still hovers between the nasal and the external route, with an increasing bias to the latter. The two may be combined, as has been done by Wiener and Sauer, who pass a probe through the dilated punctum and force it through the nasal wall. Then the opening is enlarged intranasally by punch forceps or chisel. On the other hand, Clifford B. Aalker cuts down along the nasal side between the sac and the nasal wall. A narrow mastoid gouge or chisel is pushed horizontally inwards into the nasal cavity in front of the middle turbinate, the opening being enlarged if necessary by a Kerrison punch or by a burr. A probe is passed through the punctum into the sac and that part removed which corresponds to the bony opening. This method is applicable to both acute and chronic cases.

Considerable attention has been given of late to newer methods of perimetry. The old arc perimeter for mapping out the limits of the field is in danger of being scrapped; fashion has turned to a minute study of the central zone and blind spot. Peter's campimeter is much used in America and Elliot's scotometer in England. Marks, of Brisbane, has invented a scotometer with a pantograph attachment for plotting out the scotoma on a chart. Fuller experience will determine the value of this modern attitude.

In a recent number of the *Archives of Ophthalmology*, Derrick Vail writes in an optimistic vein on detachment of the retina. He approaches the subject from the theoretical side and postulates the discovery of the active ferment, hormone or zymogen which excites the flow of aqueous humour as a possible means of cure. In the same issue E. S. Thomson reports the results of seventy-five operations, scleral trephining and aspiration; of these only seven were successful. This result is bad enough, but at least it sheds a ray of light in the hitherto impenetrable gloom.

## Abstracts from Current Medical Literature.

### MEDICINE.

#### Suprarenal Insufficiency.

PHYSIOLOGISTS and clinicians disagree in regard to the effects produced by disease or destruction of the suprarenal glands and recently physiologists have attacked clinicians for their assumptions in regard to increased and decreased function of these organs. EMILE SERGENT (*La Presse Médicale*, October 12, 1921) defends the clinicians who hold moderate views in an article on the subject of suprarenal insufficiency. In 1899 Sergent reported the case of a man who died after an attack of tonsillitis with symptoms suggestive of acute poisoning—vomiting, diarrhoea, cyanosis, shivering, dyspnoea, syncope and death. *Post mortem* the only abnormality was tuberculous destruction of the suprarenal capsules. On this and other similar cases Sergent and Bernard published a paper under the caption, "*Sur un syndrome clinique non addisonien, à évolution aiguë, lié à l'insuffisance capsulaire.*" Was the evidence sufficient to justify the symptoms being attributed to suprarenal insufficiency? Brown-Séquard had shown that excision of the suprarenals of animals produced similar symptoms, followed by death in syncope, and later Abelous and Langlois proved that an animal could survive as long as one-eleventh of the total gland substance was left, but that the animal gradually showed symptoms like those of poisoning with curare. On these experiences was based the idea that pathological disorders attributable to suppression of the function of the suprarenals did occur. The Sergent-Bernard syndrome does not include pigmentation, which occurs in Addison's disease, but it is well known that melanoderma occurs in many other diseases, including disorders of other ductless glands, and it is possible that its occurrence in Addison's disease is evidence of a pluriglandular affection. Asthenia and hypotension now came to be regarded as symptoms of suprarenal insufficiency. Oliver and Shafer in 1894 and Cybalski in 1895 showed that the injection of a glandular extract or of the blood from the suprarenal veins caused a rise of blood pressure. In 1901 Takamine discovered adrenalin; this discovery was followed by numerous researches and the assumption that the effect of adrenalin was equal to the effect of the whole gland extract. But adrenalin is only a part of the suprarenal extracts and the clinical entities mentioned above are due to suppression of the total functions of the glands. Physiologists have recently shown that adrenalin is a product not of secretion, but of excretion, that physiological hypo-adrenalinemia and hyper-adrenalinemia do not occur and consequently that pathological excess or deficiency of adrenalin in the blood does not occur and further that adrenalin does not

include the whole of the suprarenal extracts. Gley showed that adrenalin was very quickly destroyed in the blood, even before it reached the hepatic veins, and therefore could not exert a tonic influence on the cardiovascular system. Consequently, if suprarenal insufficiency has any effect on the organism as a whole, it is not due to deficient adrenalin, since this substance is never present in the circulation in anything but infinitesimal amount. Gley suggested that the term "trophic deviation" should be used for variations in the function of the suprarenals. He stated that there was no means of studying the syndromes of hyper-adrenalinemia and hypo-adrenalinemia which have received such frequent mention recently. The question of hyper-adrenalinemia appears to have been similarly discounted by Stewart and Rogoff, who found that in cats from which one suprarenal gland was excised and the nerves to the other severed, hyperglycemia occurred on partial asphyxiation or anesthetization with ether. This experience is contrary to Cannon's, who in 1911 formulated the hypothesis that emotions produced hyperglycemia, owing to increased adrenalin secretion. Stewart's researches seem to show that the main effects of the suprarenal gland are produced by the cortex and this agrees with the pathology, since lesions in disease have usually been found mainly affecting the cortex. Biedl thought that the internal secretion regulated the tonic innervation of the whole sympathetic nervous system. However, Lewandowski in 1899 found that suppression of the suprarenal glands caused no lowering of the blood pressure, at least in twenty to thirty minutes, and Gley and Quinquand showed that the excitability of the splanchnic nerves is not modified by double excision of the suprarenal glands or by ligation of both veins, so that the vasomotor function of these nerves is not due to the secretion of adrenalin as Elliott thought, but is a purely nervous phenomenon. Finally, Porak showed that a very minute quantity of adrenalin sufficed to maintain the vascular tone, which tends to belittle the rôle accorded to hypo-adrenalinemia; and in this connexion it must also be remembered that the retention of a very small part of the glands is sufficient to prevent the effects which occur on their complete removal. To sum up, physiologists and clinicians agree that the suprarenal capsules are essential to life and that their experimental removal produces effects much like those seen in man in association with acute destructive lesions of the glands. A sympathico-endocrine system is admitted by all. The suprarenals secrete a substance, whose composition is unknown, which exerts a profound influence on the organism. The medulla produces adrenalin and the cortex cholesterolin and Wheeler's observations suggest that the cortex is the part essential to life. Sergent maintains that he and his school have never employed the terms hypo-adrenalinemia and hyper-adrenalinemia, but have always considered abnormalities

of suprarenal secretion from the point of view of excess or deficiency of the whole gland products.

#### Standardization of Patellar Reflex Test.

G. V. BOEHME (*Medical Record*, December 11, 1920) discusses the various methods in common use for the eliciting of the patellar reflex and advances a plea for the standardization of measurements for this test. It is a matter of common experience that when a patient is under nervous strain or excitement, inhibitory impulses tend to modify the condition of the nerve-tendon reflexes. This is especially true in medico-legal cases and cases in which patients tend to simulate injury. Not infrequently difficulty is experienced in the procuring of necessary relaxation on the part of the patient, even when methods of reinforcement by Jendrassik's method or other devices are employed. The absence of total relaxation and inconstancy of position of the examined limb tend to make the results of examination unreliable. The author has devised a method for eliciting the reflex which is stated to conduce to uniformity. The patient is placed upon his back with the thigh flexed upon the abdomen to a position of complete flexion. The knee is flexed upon the thigh to a right angle and the physician holds the leg by grasping the ankle with the non-percussing hand. The tendon of the *quadriceps extensor femoris* muscle is then percussed with a percussion hammer and the intensity of the response can readily be estimated if the hand holds the ankle. It is claimed that by this method a more accurate comparison of the reflexes on the two sides can be obtained than by the usual methods.

#### Hyperglycorachia in Epidemic Encephalitis.

HAROLD E. FOSTER (*Journal of the American Medical Association*, May 7, 1921) reports a series of tests made in the pathological department of the Massachusetts General Hospital during the recent epidemic, to investigate the occurrence of sugar in the cerebrospinal fluid of patients suffering from epidemic encephalitis. The determinations were made from the second to the thirty-fifth day of the illness. A constant increase was noted in the sugar content. It was noted that the severest cases clinically gave the highest sugar percentage and that during an exacerbation of the disease the percentage was likely to increase. In all cases no reaction with cerebrospinal fluid or blood occurred to the Wassermann test. The colloidal gold reactions were found to be quite variable. The author concludes that hyperglycorachia is usually present in epidemic encephalitis. There is no evidence of a corresponding glycemia or glycosuria. It appears to be the only test which is characteristic of this condition and, in the absence of a distinctive pleocytosis, total protein content or colloidal gold reaction, it is of value as an additional diagnostic aid.



## NEUROLOGY.

## Recurrent Hypertrophic Neuritis.

F. J. NATTRASS (*Journal of Neurology and Psychopathology*, August, 1921) recently observed in a boy of eighteen years a clinical syndrome consisting of extensive flaccid paralysis of muscles with loss of reflexes and with electrical changes; sensory phenomena, mainly subjective; incoordination of movements; and hypertrophy and hardening of the nerve-trunks. Almost complete recovery occurred and there was evidence of two previous attacks of the same nature. The onset was quick. Within from forty-eight to seventy-two hours of the initial symptoms he had completely lost the use of his legs and could only move his arms a little. He had much pain in all his limbs and his back. There was no fever, but he looked ill. Nearly all the muscles of the upper and lower limbs became wasted and showed partial or total loss of voluntary power. Electrical changes were pronounced in the hand muscles and the anterior tibial group. Touch, pain, heat and cold were appreciated. On palpation of the nerve trunks there was definite enlargement and apparent hardening of such as could be reached, viz., the median, ulnar and external popliteal on both sides. The enlargement was uniform, not nodular, and the nerves were tender. Recovery took place after about three months. Previous and similar attacks had occurred at the ages of four and seventeen years. The view put forward by the writer is that the case represents a modified and recurrent type of hypertrophic interstitial neuritis as originally described by Déjerine and Sottas.

## The Mechanism of Referred Pain.

JOSEPH BYRNE (*Journal of Nervous and Mental Diseases*, June, 1921) writes that all pain, whatever the cause, is in reality referred pain. The great causative factors in referred pain are mechanical trauma, such as contusion, over-stretching and compression, and infection, the mechanism essentially consisting of the hyperfunctioning of related affective neurones. The incubation period, during which pain and tenderness are absent for some time after severe injury of nerve trunks, is the result of axonal reaction in the related neurone bodies of the spinal ganglia, with consequent cessation of specific function. Alcoholic and other injections into the nerve trunks for the relief of neuralgia act by inducing axonal reaction phenomena and suspension of specific function in the related affective neurones in the spinal ganglia. In all operative proceedings crushing, stretching or otherwise injuring nerves that are to remain connected with the spinal cord, should be avoided as factors in the causation of interstitial neuritis, neuromata and other vital sources of referred pain. In assessing the value of aetiological factors, with a view to therapy in neuralgia and neuritis, due weight must be attached to occupational and pos-

tural trauma of the nerves, muscles, tendons and ligaments, as well as to exposure and faulty function from whatever cause. Lastly, the afferent pathways from periphery to thalamus and not merely the locus of the pain and tenderness must be kept in mind.

## Syphilis and Degeneration.

B. P. THOM (*Journal of Nervous and Mental Diseases*, August, 1921) estimates that 10% of the white and 30% of the coloured population of the United States of America suffer from hereditary or acquired syphilis and that this disease accounts for practically all the degeneracy. Hereditary syphilis may be difficult to detect in the absence of stigmata, though the cerebro-spinal fluid will usually yield a Bordet reaction. Parental syphilis may affect the offspring in three ways: (i.) By direct infection of the germ cell with the *Spirochæta pallida*. In this connexion, the postponement of signs of hereditary disease until adult life, is indicated. (ii.) By chemical or molecular changes in the germ cell brought about by spirochætal toxins. This may induce arrest of development, both mental and physical, but the tissue fluids of the child will not yield a Bordet reaction. (iii.) It is suggested that the abiotrophies of the second and third decades may be due to affection of the germ cell by the spirochæte or its toxins. Moreover, all severe cases of hysteria, psychasthenia and neurasthenia may be referred to syphilis in the father. "Degeneracy" is a misnomer, because often so-called degenerates are superior to their forebears. Hence the word "deviation," implying departure from the normal, is preferable. The author attributes most crime and deterioration to syphilis, but only quotes some figures compiled by Atwood in favour of his views.

## The Pathology of Trigeminal Neuralgia.

PERCIVAL BAILEY (*Journal of Nervous and Mental Diseases*, July, 1921) examined eleven Gasserian ganglia removed at operations by Harvey Cushing for the cure of trigeminal neuralgia and fourteen from other patients suffering from the same affection on whom no previous operative measure had been performed. In all the ganglia the pathological changes found were exceedingly meagre. He concluded that, apart from senile changes, the ganglia of the subjects of trigeminal neuralgia were normal. Therefore, the essential lesion in this disease must lie at the periphery. The fact that section of nerve trunks at peripheral foramina subdued pain until the nerve again regenerated was sufficient, in the opinion of the writer, to establish this point. Certain clinical facts, such as the initiation of the pain by cold air or talking, were consistent with this view. He would look, with Harris, for affection of the nerve endings, which hitherto have not been examined. In a discussion on this paper, Harvey Cushing adheres to the view that the seat of the lesion is in the ganglion. J. W. Courtney suggests a vaso-constriction of the nutri-

ent arteries of the nerve, pointing out that *tic douloureux* and arterio-sclerosis are usually associated.

## The Argyll-Robertson Pupil.

S. A. KINNIEER WILSON (*Journal of Neurology and Psychopathology*, May, 1921) furnishes fresh evidence in favour of the central origin of the phenomenon known as the Argyll-Robertson pupil and a new and simple explanation of its occurrence in neurosyphilis. As all the world knows, this phenomenon is encountered in a high percentage of cases of neurosyphilis. At the same time, it may arise quite independently of syphilis. Indeed, cases are cited which show that it may be present in epidemic encephalitis, in disseminated sclerosis, in certain cases of cerebral tumour in the vicinity of the third ventricle, aqueduct or anterior corpora quadrigemina and in chronic alcoholism, diabetes mellitus and traumatism. After describing the physiological arc for the light reflex, the writer goes on to say that a single localization for the Argyll-Robertson sign is not to be expected. Nevertheless, the most common is in the neighbourhood of the aqueduct and in neurosyphilis the ependymitis and periependymitis so commonly found in this situation is the essential cause of the phenomenon. In other and rarer cases the lesion is nearer the back of the eye, in the course of the optic nerve or tract distal to the geniculate bodies; in some other cases lesions of the ciliary ganglion cannot be excluded. The paper ends with support of the hypothesis that the myosis of the Argyll-Robertson pupil is also due to changes in the vicinity of the aqueduct.

## Puncture of the Cisterna Magna.

JAMES B. AYER (*Archives of Neurology and Psychiatry*, April, 1920) has described a method of obtaining cerebro-spinal fluid from the base of the brain by puncture of the cisterna magna. The procedure, while safe and easy, should first be practised on the cadaver. The patient is placed on one side, as if for lumbar puncture, with the neck moderately flexed. The needle is inserted in the mid-line of the neck, just above the spine of the axis, and is gradually forced forwards and upwards in line with the external auditory meatus and glabella, until the *dura mater* is pierced. In an adult the *dura* is usually reached at a depth of 4 cm. to 5 cm. and in this position there is usually a distance of 2.5 cm. to 3 cm. between the *dura* and the medulla. The proceeding was found of value in the diagnosis of postmeningitic subarachnoid block, in the treatment of a selected group of cases of cerebral syphilis and in one case of epidemic meningitis.

HENRY McCUSKER (*Journal of Nervous and Mental Diseases*, June, 1921), writing on the same subject, says he followed Ayer's method and did 55 punctures on nine patients. These punctures were made without difficulty and the discomforts to the patient were less than those arising during and after lumbar puncture.

## British Medical Association News.

### SCIENTIFIC.

A MEETING of the New South Wales Branch was held at the Royal North Shore Hospital of Sydney, St. Leonards, on October 14, 1921, Dr. FOURNESS BARRINGTON, the President, in the chair.

#### Exhibit of Skiagrams.

DR. H. R. SEAR and DR. W. B. DIGHT exhibited a series of excellent skiagrams.

#### Pathological Specimens.

DR. EMMA BUCKLEY showed a number of pathological specimens prepared by Dr. C. H. BURTON BRADLEY and herself.

#### Craniotomy.

DR. E. M. HUMPHREY showed a patient on whom a craniotomy had been performed for Jacksonian epilepsy with good results. The patient was a young woman of nineteen years, who had sustained three and a half years previously a fall from a moving train. She had fallen on her head and had become unconscious for some considerable time. It was found that she had a wound of the scalp on the right side over the Rolandic area. Later she began to suffer from fits. These averaged about three a week. They often followed periods of excitement. They occurred without warning and for several hours afterwards the patient would remain unconscious. On a few occasions she had bitten her lip during an attack. The fits were Jacksonian in character and lately were becoming more frequent. Prior to operation, examination of the nervous system revealed no motor or sensory disturbance. At operation a large osteoplastic flap had been dissected back over the wound area. Thickened and adherent *dura mater* was found on raising the flap, adhesions were freed, thickened patches scarified, a small gauze drain inserted and the flap replaced. The convalescence was uninterrupted. Since the operation there had been no return of the fits.

#### Stricture of the Trachea.

Dr. Humphrey next described the cases of two small boys on whom he had operated for stricture of the trachea following tracheotomy. One boy was two and the other four and a half years of age. Both had suffered from diphtheria and laryngeal obstruction. The elder boy had undergone the operation of tracheotomy prior to admission. On the younger intubation had been performed in hospital, but as the obstruction to respiration gradually increased, it was found desirable to perform tracheotomy three weeks after admission. The elder boy was anesthetized, a thread of catgut was passed on an aneurysm needle through the tracheotomy wound into the mouth and a strip of gauze was attached to the thread and made to pass by a see-saw movement, so as to break down the granulations which had formed. This operation had been repeated since and the boy could now breathe comfortably and, except that he suffered from huskiness of the voice, he was quite well. The younger boy had undergone a similar operation and had obtained slight relief. A week later, however, thyrotoxy was performed, the granulations were scraped away and an intubation tube was left in for four days. The passage had remained clear after removal of the tube.

#### Carcinoma of the Stomach.

Dr. Humphrey's third patient was a woman of 67 years on whom gastrectomy had been performed for carcinoma of the stomach. The interest of this case lay in the fact that the greater part of the stomach had been excised. About three-quarters of the organ, including the growth, together with a chain of glands extending along the lesser curvature almost to the cardiac end and another chain in the gastro-colic omentum, had been removed. Recovery was uninterrupted and the patient had since put on 8.2 kilograms weight.

#### Carcinoma of the Chest Wall.

Lastly, Dr. Humphrey described the case of an old man of 83 years who had suffered from carcinoma of the chest

wall with involvement of the axillary glands. The tumour was a hard swelling in the region of the left nipple. Previously two similar growths had been removed, one from the left posterior aspect of the chest and the other from the left side of the abdominal wall. The fresh growth, together with the glands and the axillary contents, had been removed in one piece. The pathological report showed that the growth was a carcinoma and that the glands were infiltrated with carcinomatous cells. The interest of this condition lay in its infrequent incidence in the male.

#### Muscular Dystrophy.

DR. F. GUY GRIFFITHS described for himself and for Dr. S. SCOUGALL a case of muscular dystrophy. The patient was a man of middle age. Dr. Griffiths demonstrated on the patient the main features of the case. The atrophy affected chiefly the musculature of the back, to a less extent that of the lower limbs and to a less degree still that of the face. The most extreme changes were seen in the *Musculus sacro-spinalis*, in the gluteal and in the hamstring muscles. There was no hypertrophy visible in any of the muscles, with the possible exception of the *vastus lateralis*. All the muscles responded briskly to both galvanic and faradic currents. The kathodal closing contraction was greater than the anodal closing contraction. The response to the galvanic and faradic currents diminished in proportion to the atrophy of the muscles. The chief disability of the patient lay in the imperfect movement of extension at the hip. He was unable to assume the slight degrees of flexion at the hip which a normal man assumed while standing. The moment the centre of gravity of the body fell anterior to the axis of the hip joint the extensor muscles were unable to readjust the balance and the trunk fell forward. To maintain stability the patient made hyper-extension at the hip joint, so that the strain might be taken by the anterior group of muscles and the ileo-femoral ligament. That would partly account for the slight hypertrophy of the anterior group of muscles. The gait was marked by the similar protusion forward at the hip joints and the backward bending of the trunk to ensure that the weight of the body fell posterior to the axis of the hips. In spite of the very marked atrophy of the *sacro-spinalis* muscle, the patient was able to maintain extension of his spine when the trunk was bent forward at right angles to the lower limbs. This was not due to any immobility of the spine in extension. A possible explanation was that he had developed this power as a result of the local massage and active movement which had been carried out for about two years.

A second feature was his inability to perform the initial stages of the movement of extension at the hip and inability to complete it. This limited extension was not a rebound from excessive flexion, but was due to muscular action. A possible explanation was as follows: The extensor muscles were the ham strings and the *gluteus maximus*. The work done by those muscles depended on the torque, which might be expressed as the force multiplied by the perpendicular distance. The perpendicular distance was greatest in the position of full flexion and diminished as extension was assumed. It was possible that the torque was greatest at the beginning of extension.

Another interesting feature was the patient's method of assuming the upright position. Sometimes he rotated his spine till the position of lateral flexion was reached and he then used the oblique muscles of the abdominal wall in order to obtain the upright posture. At other times he used a less obvious method. In the erect attitude there was a considerable range of antero-posterior movement of the centre of gravity of the trunk, which was compatible with the maintenance of stability. The nearer the anterior limit, the greater was the strain on the muscles of the calf. In the patient concerned the muscles of the calf group were not affected. By this second method the patient extended rapidly through the initial portion of the arc and the momentum carried him a little farther, but not sufficiently far to allow full extension and hyper-extension. The final stages of the movement were effected by the patient suddenly bending his knee forward and downward, while the hip joints followed in the same direction. The patient, so to speak, threw his hip joints beneath the trunk to complete the movement. The centre of gravity was thus moved towards the anterior

limit and the patient contracted his calf muscles to bring him to his usual standing attitude.

#### Placenta Prævia.

DR. J. L. T. ISBISTER read a paper on a case of *placenta prævia* (see page 96).

#### Fracture of the Os Calcis.

DR. A. E. DAGNALL CLARK showed a patient who had sustained a fracture of the *os calcis* by muscular action. The patient was a married woman of 62 years. On September 6, 1921, she slipped and fell down a number of steps. With the aid of a stick she managed to walk to the Royal North Shore Hospital of Sydney, but her heel was very painful and she was unable to move her foot. On examination there could be felt a hard mass with a sharp edge above and behind the normal position of the *os calcis*. The displacement was due to contraction of the gastrocnemius muscle. A skiagram revealed a fracture of the *os calcis* with posterior and upward displacement of the detached fragment. Two days later Dr. Clark operated. He wired the tuberosity of the *os calcis* with its attached *tendo Achillis* to the main body of the bone. The *tendo Achillis* was lengthened, a drain inserted and the foot secured in extension by Gooch spinting.

#### Sarcoma of the Head of the Humerus.

Dr. Clark also showed an old lady of 80 years, who complained of having experienced difficulty in raising her arm for two weeks. Movement about the right shoulder joint was limited and there was pain. A diffuse swelling around the joint simulated a recent dislocation. Dr. Clark was of opinion that the condition was one of sarcoma of the head of the humerus.

#### Fibroid Tumour of the Uterus.

DR. H. LEAVER read for Dr. H. Z. THROSBY and himself a description of a case of fibroid tumour complicating the puerperium. He also exhibited the excised uterus containing the fibroid. The patient was a primipara of 30 years. She had not been seen by a doctor till she had advanced seven months in pregnancy. The lie of the fœtus was right occipito-posterior. The fœtal heart could be heard beating on the right side of the mother's abdomen low down. In addition to the uterus a mass was palpable on the left side at the level of the umbilicus. A provisional diagnosis of fibroid of the uterus was made. As a faint fœtal heart sound could be heard on the left side, the possibility of a twin pregnancy was considered. The patient was confined at full term. Irregular uterine contractions were accompanied by severe cramps, but the child's head failed to advance after complete dilatation of the cervix. Forceps were applied and the child was born without any injury to the perineum. The puerperium was uneventful till the seventh day, when the patient experienced severe bearing down pains. *Per vaginam* a large fibroid shutting off the cavity of the uterus at the level of the internal *os* was felt. The temperature and pulse began to rise and a hysterectomy was performed by Dr. Throsby. The cavity of the uterus contained decomposing lochia. The patient made a good recovery, the temperature returning to normal on the third day after operation. The specimen showed a large sub-mucous fibroid with cystic degeneration. It had obliterated the uterine cavity.

#### Hypertrophy of Cervix.

DR. THROSBY showed a pregnant woman who had a marked hypertrophy of the anterior lip of the cervix. He asked for an opinion on the possibility of its forming an obstruction to labour.

#### Imperforate Anus.

DR. LEAVER read notes of a case of imperforate anus. The child was operated on thirty-six hours after birth. Up to this time he had passed urine but had failed to pass a motion. It was stated that prior to admission the napkin had been stained with meconium. On examination an interesting condition was revealed. Stretching from the coccyx to the scrotum and continuous with the median raphe was a tail-like structure about 5 cm. in length. It

was soft and apparently contained no bone. It was evidently not continuous with the coccyx, the distal extremity of which could be definitely felt. Slightly to the left of the mid-line of the perineum a dimple in the skin could be seen. The appendage was cut off from its anterior attachment to the scrotum and dissected back to the skin over the coccyx and removed. In its middle the structure was found to be attached to the perineum by a thin film of tissue and a probe was passed without difficulty from side to side under the middle third of the structure. It was impossible to find an opening in the perineum through which a probe could be passed, although a minute opening must have been present. Dr. F. W. Doak operated. He made a horseshoe-shaped incision from one ischial tuberosity to the other and opened the perineum. The bowel, however, was not encountered. As some meconium had been passed, it was decided to wait for twenty-four hours. The baby's abdomen was not at this time distended. He was in all other respects a well-developed child but did not show a normal baby's avidity for food. The following day the abdomen was distended. A small quantity of meconium was passed at mid-day and again at 4 p.m. At 5 p.m. the child was again subjected to operation. After some slight dissection a loop of bowel was discovered on the left aspect of the perineum. It was inside and a large quantity of dark green meconium escaped. The edges of the perineal wound were approximated with one suture of horsehair. On June 18 the baby was passing fæces by the perineal opening. Five days later he appeared to have attained a slight amount of sphincter control. On October 1 he had progressed so well that there was no incontinence of fæces. The specimen which had been removed was subjected to pathological examination. A section was found to contain squamous stratified epithelium which enclosed subcutaneous fatty and fibrous tissue. In the latter were many sebaceous glands radially arranged. In the centre of the section were bundles of striped muscle. There was no evidence of the presence of either cartilage or bone.

#### Hæmaturia Complicating Utero-Gestation.

DR. J. L. T. ISBISTER showed for Dr. C. E. WASSELL a woman of 28 years suffering from hæmaturia complicating utero-gestation. For the past four years the patient had passed "gravel" in the urine from time to time. She was six months pregnant and had suffered from hæmaturia for one month. She gave a history of severe renal colic, but for three weeks prior to the date of demonstration there had been an entire absence of pain. Fever had been absent since shortly after her admission on August 24, 1921. She experienced tenderness on palpation over the left kidney and over the bladder. Except for the hæmaturia, she now felt well. A skiagram had failed to reveal the presence of a calculus in any part of the urinary tract. No tubercle bacilli or bilharzia had been detected in the urine. Dr. Isbister asked for an opinion on the cause of the bleeding from the urinary tract.

#### Subcortical Lesion of the Left Cerebral Hemisphere.

DR. F. GUY GRIFFITHS demonstrated two cases for Dr. G. A. VAN SOMEREN.

The first had been diagnosed as a subcortical lesion of the left cerebral hemisphere. The patient was a share broker, 37 years of age, and had been admitted to hospital with the signs of a right-sided hemiplegia, pure aphasia, agraphia and alexia. He was childish in manner, but understood what was said to him. When he had in mind to use a certain word he could tell which was the right and which were the wrong words suggested to him by his physician. He was now learning to say several words. The power of his lower limbs was gradually returning and his right arm was slowly becoming spastic.

#### Infection of the Kidneys and Bladder.

The other patient was a woman of 40 years who suffered from an infection of the kidneys and bladder with the *Bacillus coli communis* and a tuberculous infection of the lungs. Tubercle bacilli had been demonstrated in the sputum. Treatment consisted of the administration of anti-streptococcal serum, *Bacillus coli* vaccine, tonics and general hygienic measures.



### Compound Dislocation of the Elbow.

In the absence of Dr. E. A. R. BLIGH, who was ill, Dr. E. M. HUMPHREY demonstrated four cases.

The first patient was an engineer's apprentice, aged 16 years, who had been admitted to hospital on October 30, 1919. While he was planing a steel casing, his elbow was carried beneath a steel bar and was badly crushed. He sustained a compound dislocation of the elbow. The internal condyle of the humerus was torn off along with fragments of loose bone. The radius was dislocated, the ulna was impacted in the humerus, the joint was opened up, the muscles were torn from their attachment and the ulnar and median nerves were crushed. Amputation seemed inevitable, but conservative treatment led to eventual healing with involvement of the median and ulnar nerve. These were later freed from the enmeshing scar tissue and the bone and, although there was at present no sensation in the hand, the patient had a good useful limb.

### Infantile Paralysis.

The second patient was a young woman who had been afflicted at the age of two years with infantile paralysis involving the right leg. Up to the age of ten years she had received no treatment. At that time she was moving about on crutches, her leg was flail-like and the only muscular control which she possessed was slight flexion of the thigh with the aid of the ilio-psoas muscle and slight extension with the aid of the gluteal muscles. Arthrodesis of the knee joint had been performed and the patient allowed to walk with a Thomas's knee splint applied to the affected limb. The shortening of the leg, which amounted to 10 cm., was compensated with a cork sole. The patient made use of a pelvic band. The splint was hinged at the hip joint and at the ankle joint was an artificial muscle. Now, at the age of 20 years, a definite improvement of the thigh muscles was noticed and the patient was able to walk with the aid of a light splint.

### Crushed Arm.

The third patient was a girl aged 10 years, whose left arm had been crushed by the moving wheel of a railway carriage. The wheel had almost completely torn off the skin from the junction of the middle and upper thirds of the humerus downwards. The only portion which could be saved was a narrow strip 3 cm. wide on the thumb side. Three fingers were amputated, but the deep fascia was not otherwise opened up. The arm had been treated by immersion in normal saline solution at body temperature. The skin grafting had been done and the resultant scar was excellent.

### Senile Gangrene of the Leg.

The next patient was a man of 74 years, who had been admitted on November 7, 1920, suffering from senile gangrene of the right leg. The patient had complained of pain and a sensation of cold in the limb for one week. There was no history of syphilis. The urine contained no albumin and no sugar. Gangrene had begun in the toe. Amputation of the ankle had been performed and, owing to the atheromatous nature of the blood vessels, no ligation was necessary. It was found that successive amputations through the middle of the leg, the knee joint and the junction of the middle and upper thirds of the thigh were necessary. On each occasion no vessel required ligation. When an attempt was made to ligate the popliteal artery, the vessel broke in two. On each occasion after healing of the wound the bone gradually protruded and, although the latest amputation wound had been healed since September 11, 1921, it was gradually protruding again.

### Recurrent Polyarthritis.

Dr. GUY GRIFFITHS showed a male patient suffering from recurrent polyarthritis with fever. He was 65 years of age. His mother had suffered from gout. The affected joints were painful and swollen. There was thickening of the periarticular tissues, especially of the left elbow, where the olecranon appeared unusually huge and prominent. The lower end of the left ulna presented a rounded enlargement. Nodules like tophi appeared on the mar-

gins of the auricles. *Pyorrhæa alveolaris* was present in both jaws. A blood count revealed the presence of 2,840,000 erythrocytes in each cubic millimetre of blood. The hæmoglobin value was 60%, the colour index 1.05. There were 8,750 leucocytes in each cubic millimetre of blood. While the patient was in hospital it was noticed that a systolic bruit audible in the aortic area and an accentuation of the second aortic sound had appeared. The pulse became of the water hammer type and capillary pulsation was visible. The blood pressure showed a systolic value of 182 millimetres of mercury and a diastolic value of 80. The temperature rose as high as 40° C. Five weeks after admission the left ankle became very swollen and tender and the temperature was still raised. The illness was characterized by bouts of high fever, which synchronized with the spread of the infection to hitherto unaffected joints and which subsided in from ten to fifteen days. Relief followed the use of salicylates in treatment, although the response was sometimes delayed. The patient was discharged on July 21, 1921, fifteen weeks after admission, and despite advice to the contrary he persisted in his determination to return to his former occupation.

### Abnormality of Right Shoulder Blade.

The other patient shown by Dr. Griffiths was a school-girl of 15 years, who had been admitted on September 23, 1921, with the complaint of undue prominence of the right shoulder blade. This abnormality was noticed two weeks prior to admission. On examination, the inferior angle of the right scapula was found to be displaced outwards from its normal position, so that the vertebral border lay at an acute angle to the line of the spinal column. Some lateral curvature of the upper thoracic spine was noticed, the convexity being to the right. There was pain on direct percussion over the fourth thoracic spinous process. Jarring of the head or the heels caused no discomfort. The curvature was not due to muscular weakness, since it was reduced when the patient was told to speak. There was no fever. She had suffered from a slight, occasional cough, but examination of the chest had disclosed no abnormality beyond a few medium post-tussic crepitations at the apex of the right lung anteriorly. A skiagram was taken, but it revealed no evidence of spinal caries or of tuberculous disease of the lungs. It showed, however, some degree of lateral curvature of the dorsal spine. On the supposition that the condition might be due to an active or a healed tuberculous lesion, the full test dose of old tuberculin was administered. A slight local reaction was obtained, but both focal and general reactions were absent. No change in the deformity had occurred since admission. The general health was much improved and the tenderness over the fourth thoracic spinous process had lessened.

### Albuminuric Retinitis.

Dr. TEMPLE SMITH invited members to examine the fundus of a patient suffering from albuminuric retinitis.

A MEETING of the New South Wales Branch of the British Medical Association was held at the B.M.A. Building, 30-34, Elizabeth Street, Sydney, on October 28, 1921, Dr. FOURNESS BARRINGTON, the President, in the chair.

### Prophylaxis of Venereal Diseases.

Dr. P. FIASCHI, O.B.E., opened a discussion on the prophylaxis of venereal diseases by reading a paper (see page 85).

Dr. L. E. ELLIS read a paper on the same subject (see page 93).

Dr. FOURNESS BARRINGTON, before calling upon other members to express their views, announced with regret that Dr. E. H. MOLESWORTH, who had intended to have been present and to have taken part in the discussion, had been prevented from carrying out his intention by illness.

Dr. RALPH WORRELL complimented Dr. Fiaschi on the valuable material he had presented to the Branch. He was glad that Dr. Fiaschi had laid stress on the hygienic importance of circumcision. He (Dr. Worrell) held the opinion that it would be wise if solicitation in the street

were made a punishable offence, but he did not believe in prohibiting brothels in which prophylactic precautions could be more readily observed. He was satisfied that the French letter was the best method of prevention. The experience of the Australian Imperial Force in the matter of prophylaxis was a valuable one. The distribution of a 1 in 2,000 solution of Condy's fluid, some cotton wool and a leaflet of instructions had been effective in preventing disease. He suggested that in some cases failure may have been due to reinfection from the clothes. In the next place, Dr. Worrall turned his attention to the educational aspect of the problem. It was necessary to urge continence. The young learnt from the young. If boys could be taught that incontinence, like cowardice and dishonesty, should be avoided as a matter of honour, he felt sure that fewer would stray from the paths of virtue. He agreed that in addition to these efforts measures should be adopted to prevent infection after a person had exposed himself to risk. Immediate disinfection offered the best chance. The microbe infection was easily killed in the very early stages.

Dr. J. S. PURDY, D.S.O., referred to the steps that were being taken in England under the Ministry of Health. Each municipality was required to provide a scheme for the prevention of venereal disease. In the larger municipalities special hospitals had been established, while elsewhere other forms of treatment centres had to be instituted. The Ministry made it obligatory on each municipality to arrange for the free bacteriological examination and other laboratory tests used in the diagnosis of venereal diseases. Arseno-benzol or one of its substitutes was provided free of cost to practitioners who could demonstrate their ability to use it. Further, post-graduate courses in venereal disease had been established. Sir George Newman had recommended that there should be a special course in syphilology. He thought that every student should be required to have some special knowledge and skill in the diagnosis and treatment of these diseases.

The Royal Commission on venereal disease had not recommended notification. On the other hand, it was evident that the majority of public health authorities held the view that some method should be adopted of obtaining information of the presence of infection. The experience in England had shown that under the voluntary system the majority of patients did not attend for a sufficiently long time to insure cure or at least freedom from infection.

Dr. Purdy did not agree with Sir James Barrett when he stated that the venereal disease problem had nothing to do with morality. The prophylactic packets distributed in the Australian Imperial Force had been quite useless in many cases. Dr. Purdy asked whether any man who had a daughter, would allow a young man to visit his house if he knew that he had in his pocket a prophylactic packet. He disagreed with another view expressed by Sir James Barrett, namely, that alcohol had nothing to do with the problem. Many men succumbed to temptation while under the influence of alcohol. Moreover, a person in drink obviously could not be trusted to apply prophylactic measures.

After referring to the Sydney Corporation Amendment Bill recently introduced with a clause permitting the establishment of prophylactic depôts for the early treatment of venereal disease, Dr. Purdy stated that the suggestion before the Sydney Municipal Council was merely to establish a prophylactic depôt near Circular Quay and not to undertake any treatment of actual disease. He did not advocate either treatment or prophylaxis to be free, except in absolutely indigent cases. What people got for nothing they did not appreciate to the same extent as that for which they had to pay.

Various associations had been formed in the several States for the purpose of fighting venereal disease. He approved of the Victorian scheme, by which the Council of the Victorian Branch of the British Medical Association had the right to nominate one-third of the members of the Council of the Society for Fighting Venereal Disease. Dr. Purdy was convinced that it would be possible to control the incidence of venereal disease if they could get hold of the patient soon after exposure to infection and if the prophylactic measures were applied personally by the medical officer.

Dr. C. J. WILEY said that he had been very interested in Dr. Fiaschi's remarks. Dr. Fiaschi was a recognized authority on this very complicated subject. Apart from the inherent difficulties, they had to contend with the vagaries of human nature, which offered a special impediment to complete success. Dr. Wiley dealt with the various methods that had been tried. In the first place, there was prevention by personal hygiene. This was an ancient and a valuable method. It had originated in the School of Salerno. In its simplest form the passing of urine immediately after coitus was held to produce some mechanical cleansing of the urethra. Dr. Wiley found that as the question of drugs had been dealt with by previous speakers, it was unnecessary for him to go into details. He favoured the establishment of prophylactic depôts. In regard to the value of prophylactic packets, the rival societies in England were divided in their opinions on the moral issue. There was a great difference between the use of these packets and the proper use of them. The second method was the more efficient treatment of venereal disease. This implied better education of medical students. There should be uniformity in the scientific standard of cure. The third method was the application of propaganda and the education of the masses. This means had been adopted by the various societies for the prevention of venereal disease. In some cases it was associated with an active anti-alcohol campaign. There was no doubt concerning the utility of these societies and the medical profession should give them encouragement. The fourth and last method consisted in the legislative control and regulation of prostitution. This method had been a failure in every country in which it had been tried.

Dr. Wiley held the opinion that laboratory research into the pathological and other problems of venereal disease should be encouraged. They should recognize their limitations and face the fact that it would be impossible to eradicate venereal disease altogether. Nevertheless, much could be done to reduce its incidence.

Dr. NORMAN M. GIBSON, O.B.E., said that he had been much impressed with the manner in which Dr. Fiaschi and Dr. Ellis had dealt with the subject. He had been associated with Dr. Fiaschi while on active service and had been able to see the results of the measures introduced and carried out under his direction. He agreed with all that Dr. Fiaschi had said on prophylaxis.

In his opinion, the most important step in prevention was the education of the general public. He regarded sex hygiene as more important than prophylactic measures. In the next place, the student of medicine should be trained more efficiently to deal with these diseases. Dr. Gibson had said that the majority of students had little experience of the clinical manifestations and of the treatment of venereal diseases. It would be advisable to establish a chair in venereology.

Dr. Gibson then spoke of his experience at the Australian Venereal Hospital, Australian Imperial Force, in England. In the early days of the hospital the incidence of secondary syphilis was 35% of all syphilitics admitted. Later, when all the patients with penile sores were sent to hospital for diagnosis, the incidence of secondary syphilis was reduced to 4%.

In the third place, he dealt with prophylaxis and immediate treatment. He approved of the application of prophylaxis to women as well as to men. The packet system in the Army had proved to be a complete failure. On the other hand, prophylactic measures applied by a skilled personnel had been eminently successful in the Army and was of great use in private practice. In the last place, he advocated the appointment of a committee to recommend the best manner of dealing with the question of prophylaxis.

Dr. F. A. MAGUIRE, D.S.O., held that the work that Dr. Fiaschi had done on the other side was the work of a man who had mastered his subject. He agreed with previous speakers in regard to the necessity of special training of medical students. He claimed, however, that the teaching of this subject was not neglected in the Medical School of the Sydney University. The teaching was given in the fourth year and included the pathology and bacteriology of venereal diseases. The students of every class of the Royal

Prince Alfred Hospital were required to attend the venereal diseases clinic. He had a regular class of students attending his own clinic for women.

Dr. Maguire held that the question of the routine examination of women and of the application of prophylaxis in women was a very difficult one. It had been hoped that assistance in this connexion might have been derived from the complement fixation test for gonorrhœa. Investigations were being carried out at the Royal Prince Alfred Hospital for the purpose of controlling the value of this test. Up to the present, however, it had proved unsatisfactory for the purpose of diagnosis and of determining the fact of cure. One of the difficulties in connexion with the test was that fifteen strains of gonococci had been recognized up to the present. No fixation of complement resulted in many cases, unless all the strains were represented in the antigen.

He thought that the first line of defence should be the moral one and that an exhortation to continence should be given to all young men. An appeal on moral grounds would, he felt sure, have an effect for the time being at all events on a large number of persons. No doubt there were many who would insist on taking the risk. For these persons prophylactic treatment was indicated. It was successful in the large majority of cases, if properly carried out. He felt sure that the failure of the packet system was due to the woeful ignorance of men in regard to the anatomy and physiology of the sexual organs.

Dr. HARVEY SUTTON, O.B.E., said that Dr. Fiaschi's brilliant work on the other side had not been universally recognized. After having dealt with various phases of this work, he referred to the lectures he was giving at the University of Sydney on public health to fifth-year students. In this course he dealt with the question of prevention of venereal diseases. The students took a great interest in the subject. He held that they should be taught the measure of success which had attended the application of certain lines of prevention. Dr. Harvey Sutton regretted that the *Venereal Diseases Act* had not yet been given a chance in New South Wales.

In dealing with the subject of prophylactic measures, Dr. Harvey Sutton said that no material difference of opinion existed concerning the value of ablation centres and early treatment clinics and this fact should be proclaimed and acted upon. He advocated routine treatment of pregnant women in which there was serological or clinical evidence of syphilis. He called attention to the fact that syphilis was rare among the Jews, while gonorrhœa was common. From this it was evident that ritual circumcision was a valuable hygienic measure. In regard to education on sex hygiene, he admitted that there was considerable difficulty. The majority of children passed out of the control of the education authorities at the age of fourteen. He asked what could be taught to children under the age of fourteen that the parents would tolerate. He thought that sex hygiene should be taught exclusively to boys by males and to girls by females. He was somewhat at a loss to know how they were to approach the subject of prophylaxis of venereal disease. If their endeavours were to be successful, it would be necessary for them to have the medical profession behind them and to gain the support of public opinion. He stated that at the present time the male teachers were trained to a certain extent in sex physiology and in matters connected with the venereal disease problem.

Dr. RICHARD ARTHUR, M.L.A., congratulated Dr. Fiaschi on his admirable lesson. He was much impressed by his demand for a modern Virgil to warn against the man with the morning drop. He stated that a considerable proportion of the patients at Rookwood and Liverpool suffering from these diseases were cooks and waiters from Greek fish shops and from hotels and restaurants. It was not necessary to call attention to the danger associated with infected persons who handled food at these places. He was glad that the packet system had been condemned. From the sociological point of view, this method of solving the problem was disastrous. He admitted that between the moral and the medical aspects of the question they were faced with a dilemma. He stated that they had struggled up painfully to a certain degree of control as far as sex instruction was concerned. They should recognize, how-

ever, that it was easy to relapse. Dr. Arthur stated that there existed but a thin barrier which divided them from sexual crimes. The packet system must involve instruction of the young of both sexes of a wrong kind.

He was glad that Dr. Fiaschi had condemned the system of inspection and regulation of prostitutes. It had proved a farce both in France and in Germany. Flexner had seen enough to convince him that the examination was always carelessly carried out. The inspection as it was conducted in Brisbane once in every three weeks was nonsensical.

In the next place, Dr. Arthur argued that, since the incidence of venereal disease fell on the just as well as on the unjust, it was necessary to adopt measures for the protection of the former. He advocated the giving of a certificate of freedom from infection before marriage. He held that the majority of men who contemplated marriage while still infected with gonorrhœa, would submit to any reasonable examination and would postpone the marriage to protect their future wives and children. He held that the basic wage for young men provided them with money to burn. It discouraged marriage and favoured illicit intercourse. He agreed with Dr. Worrall that the moral issue was of prime importance. Ideals of conduct must be implanted at an early age into the minds of boys. He was convinced that appeals made at the age of puberty or shortly after created a definite and permanent impression.

Dr. R. I. FURBER, D.S.O., pleaded for the more general use of the microscope in the diagnosis of these diseases. He was afraid that the average practitioner did not possess a microscope, did not know how to stain a film and was unable to recognize gonococci. He held that a certificate of cure should not be given by a general practitioner unless it were supported by microscopical evidence. This was of considerable importance in connexion with the practice at the venereal disease depôts. More stringent measures should be adopted.

Dr. W. WOOD, speaking as a general practitioner, referred to the colossal ignorance of the average person and especially of the average woman in regard to venereal infection. He referred to the campaign adopted in the United Kingdom for the dissemination of accurate information. The propaganda was maintained by means of pamphlets, lectures and cinematographic pictures. Dr. Wood thought that much could be accomplished in Australia along these lines. A proposal had been made in regard to the exchange of literature between England and Australia. In conclusion, Dr. Wood asked Dr. Fiaschi what he considered the ideal method of prophylaxis in women.

THE HONOURABLE J. B. NASH, M.L.C., said that the problem contained psychological and physical difficulties. They had to remember the injunction to the people to go forth and multiply. The action of medical men in the prophylaxis of venereal diseases set at nought this exhortation. He (the speaker) did not recognize any difference between the venereal disease problem among soldiers and the problem among the civil population. Dr. Nash referred to a contest he had had in Egypt. He had maintained that it was not a crime to suffer from venereal disease. The patient was a sick man, not a criminal. He had fought for the recognition of this principle and had succeeded in obtaining an alteration to this effect.

If educational methods were to be effective, it was necessary for the lesson to be learnt in early life. He called attention to the fact that medical students and practitioners, who presumably had the advantage of education, were not following out what they were preaching and were not protecting themselves. Dr. Nash thought that much benefit could be gained from a recognition of the fact that there were two races in the world among which venereal disease did not occur. Harold Begbie had dealt with this matter in connexion with the Irish living in rural districts. In these communities a person who became infected, was subjected to social ostracism. In the cities the Irish were no different from any other people. The second race was that of the Basutos in South Africa. These people insisted on a high standard of virtue. The backsliders were turned over to the white people. It would be seen that in both cases the absence of venereal



disease did not depend on education or enlightenment, but was the result of a demand by the majority. Dr. Nash held that if the majority in any community determined that these things should not occur, the difficult problem of venereal disease would be solved.

Dr. A. H. TEBBUTT, D.S.O., stated that his ardour for Basutos had been considerably damped since reading a recently published account of the habits of these people. It would seem that the myth of their unsullied virtue had arisen from the imagination of a missionary.

In regard to the question of the laboratory, Dr. Tebbutt expressed the opinion that no certificate of cure should be given by the pathologist. The pathologist should merely give his opinion concerning the points he investigated. The diagnosis and determination of cure must be based on the clinical evidence in association with pathological findings. He held that the test of cure was easier in the case of syphilis than in that of gonorrhœa. He had been conducting investigations on the complement deviation test in gonorrhœa and, although the results up to the present had not been satisfactory, he was not disheartened. The test was a very delicate one, much more delicate than the Wassermann test. In the early stages gonorrhœa was a local disease, while syphilis very soon became a general one. Dr. Maguire had referred to fifteen strains of gonococci. He held that it was not possible at present to differentiate these strains serologically. He was using ten cultures at present. He had come to the conclusion that the defects in the test were not due to the absence of one or other strain, but rather to the mode of carrying out the test. A very small amount of complement was at times deviated in undoubted infections. They needed a more delicate method for the quantitative estimation of complement. The temperature at which the test was carried out, was also an important matter for consideration.

Dr. J. COOPER BOOTH expressed the opinion that education was the most important factor in the prevention of venereal diseases. It was not uncommon for a senior school boy to have sexual intercourse. In regard to the establishment of prophylactic dépôts, he expressed the opinion that they were of considerable use if the people could be told where and when to go. Dr. Booth related the experience at a small prophylactic hospital which had been opened in 1920. This establishment had been used by a few returned men with excellent results.

Dr. H. BULLOCK spoke of the difficulty in which medical practitioners in New South Wales found themselves in regard to the *Venereal Diseases Act*. The majority were disregarding its provisions. It was useless to have an Act unless it were universally enforced. On the other hand, the fear of the clutches of the law made patients come for treatment who would not do so otherwise. Thus it would be unwise to do away with the Act (as some speakers suggested) until a good trial had been given.

Dr. FOURNESS BARRINGTON, in closing the debate, thanked Dr. Fiaschi for his admirable paper. The education campaign had been started in earnest. The cloak of false modesty and the barrier of silence had been removed. Millions of people had learnt of the existence of the words gonorrhœa and syphilis and the public was becoming aware of the evils of these diseases. It was necessary to follow up with public propaganda and to fight gonorrhœa and syphilis as two of the deadliest enemies of the human race. They needed governmental help. The Government would find that money spent in this way was well invested.

Dr. FIASCHI, in his reply, stated that he had applied prophylaxis only five times in women. He employed a 2% silver nitrate solution for swabbing the urethra and a 10% solution for the cervical canal. It was necessary to apply the lotion carefully into the urethra and the ducts of Bartholin's glands.

He thought that Dr. Nash was illogical. Why did he not tell the rural Irish that venereal disease was no crime?

In conclusion, Dr. Fiaschi paid a tribute to the regimental medical officers, who had carried out their work extremely well.

On the motion of Dr. J. S. PURDY, D.S.O., seconded by Dr. L. E. ELLIS, a committee was appointed for the purpose of considering the best means for carrying out the prophylaxis of venereal disease.

## NOMINATIONS AND ELECTIONS.

THE undermentioned has been nominated for election as a member of the New South Wales Branch of the British Medical Association:

CHENHALL, HILTON WILLIAM TILLOCK, M.B., Mast. Surg., 1921 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

THE undermentioned have been elected members of the New South Wales Branch of the British Medical Association:

BEVERIDGE, LORNA DUFFIE, M.B., Mast. Surg., 1920 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

CONNELLY, THOMAS JOHN BEDE, M.B., Mast. Surg., 1920 (Univ. Sydney), Ballina, New South Wales.

GALL, GERARD HINDLEY HERBERT, M.B., Mast. Surg., 1921 (Univ. Sydney), 80, Raglan Street, Mosman.

GILCHRIST, ARTHUR GILLESPIE STUART, M.B., Mast. Surg., 1921 (Univ. Sydney), Royal North Shore Hospital of Sydney, St. Leonards.

GOLDSTEIN, ALEXANDER, M.B., Bac. Surg., 1911 (Univ. Melb.), 42, Morton Street, Wollstonecraft.

LYNCH, FREDERICK NINIAN, M.B., Ch.M., 1921 (Univ. Sydney), Urana, New South Wales.

MORRISON, FRANCIS ALEXANDER, M.B., Mast. Surg., 1921 (Univ. Sydney), Royal North Shore Hospital of Sydney, St. Leonards.

SMITH, EDNA L., M.B., Mast. Surg., 1920 (Univ. Sydney), Newnes, New South Wales.

TILLET, PAUL, M.B., Mast. Surg., 1920 (Univ. Sydney), c.o. J. V. Tillett, Esq., Crown Law Office, Sydney.

## NOTICES.

THE SCIENTIFIC COMMITTEE OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION has arranged the following provisional programme for the early meetings of the year. The Committee reserves to itself the right to modify the arrangements, but it is hoped that no changes will be necessary. The meetings commence at 8.15 p.m.

February 1, 1922.

At the Walter and Eliza Hall Institute, Melbourne Hospital.

Dr. N. H. FAIRLEY: "The Complement Fixation Test for Hydatid Disease and Its Clinical Value."

Dr. K. D. FAIRLEY: "The Clinical Aspects of Hydatid Disease, Based on an Analysis of 250 Cases."

March 1, 1922.

At the Walter and Eliza Hall Institute, Melbourne Hospital.

Dr. T. CHERRY: "The Causation of Cancer."

Dr. L. J. CLENDINNEN: "The Use of X-Rays in Treatment."

April 5, 1922.

At the Melbourne Hospital.

CLINICAL MEETING, to be arranged by the Melbourne Hospital Clinical Society. Details of this meeting will be announced later.

## Obituary.

CLAUDE SOMERVILLE HAWKES.

THE death occurred in Melbourne on January 6, 1922, of Claude Somerville Hawkes, a prominent surgeon, who had for many years practised his profession in Brisbane. He was a son of the late Anthony Mann Hawkes, a medical practitioner, who had lived for many years at Weymouth, England. He received his medical education at the Lon-

don Hospital, where he was a favourite student of Sir Frederick Treves.

Claude Somerville Hawkes left his native country some thirty years ago and commenced practice at Rockhampton, Queensland, in partnership with Dr. F. H. Vivian Voss. A few years later he visited England and on his return took rooms in Ann Street, Brisbane. In course of time he removed to Wickham Terrace, where he developed a large practice and gained general reputation as an able surgeon. Never a man of robust health, he nevertheless exhibited extraordinary energy and vitality. His tirelessness and enthusiasm were proverbial. He was reputed to have considerable skill in the treatment of affections of the eye, ear, nose and throat in addition to his ability as a general surgeon.

On the outbreak of war Claude Somerville Hawkes journeyed to England and for four years he laboured in some of the principal war hospitals. During this period he attained considerable experience in the treatment of ophthalmic affections at Roehampton. When the armistice was signed he returned to Brisbane; but his health was broken and he was only able to carry on a desultory practice. He died at the age of fifty-five years. He is survived by a wife and a brother.

By the death of Claude Somerville Hawkes one of the strongest personalities of the medical life of Brisbane has been taken away.

#### Dr. S. F. McDONALD writes:

During the last two years of his life it was my good fortune to see a little of the late Dr. C. S. Hawkes. What he was then, pulled down mentally and physically by prolonged illness associated with great pain, made me regret all the more that I had never known him in his prime. On days when he was without pain and was able to think and talk freely the fire and keenness of his mind was amazing. He had a gift for seeing the fallacies in an argument or article and of doing so lucidly and succinctly, illustrating his points by references to his own experience or from his wide reading. This last was most extensive. He had worked out a system by which he was able to pick out the essentials of any article or journal. Three subjects especially attracted him—surgery, ophthalmology and nervous diseases. In this last field he was in my opinion at his best. He had been house physician to Hughlings Jackson at the London Hospital and his life had been forever coloured by his master's influence. It was my good fortune to be associated with him in two obscure nervous cases. In both he was absolutely correct and in one the diagnosis depended on an ophthalmoscopic appearance which escaped the specialist who had also seen the case. His library included every branch of medicine and he seemed to have read them all and could give a sound and reasoned opinion on any of them. His one hobby was the collection and cutting of precious stones and in this field he was a recognized authority.

What he would have done had his life not been dogged by continuous illness, it is hard to say. His gifts more nearly reminded me of a great London consultant than of a practitioner in an Australian provincial city.

## Naval and Military.

### APPOINTMENTS.

The following appointments, etc., have appeared in the *Commonwealth of Australia Gazette*, No. 5, of January 19, 1922:

#### Australian Military Forces.

##### FIRST MILITARY DISTRICT.

##### *Australian Army Medical Corps Reserve.*

HONORARY CAPTAIN F. G. MEADE is transferred from the Australian Army Medical Corps Reserve, Third Military District, 1st January, 1922.

THE resignation of HONORARY CAPTAIN W. G. BROWN of his commission is accepted, 14th January, 1920.

##### SECOND MILITARY DISTRICT.

##### *Australian Army Medical Corps.*

CAPTAIN C. W. SINCLAIR is transferred to the Reserve of Officers, 1st January, 1922.

##### THIRD MILITARY DISTRICT.

##### *Australian Army Medical Corps Reserve.*

HONORARY CAPTAIN F. G. MEADE is transferred to the Australian Army Medical Corps Reserve, First Military District, 1st January, 1922.

THE resignation of HONORARY CAPTAIN H. S. WALSH of his commission is accepted, 15th December, 1921.

##### FIFTH MILITARY DISTRICT.

##### *Australian Army Medical Corps.*

##### To be Major—

CAPTAIN J. BENTLEY, M.C., with corps seniority next after MAJOR C. H. SHEARMAN, 1st September, 1921.

##### To be Captain—

HONORARY CAPTAIN W. E. BLACKALL, from the Australian Army Medical Corps Reserve, 1st January, 1922.

MAJOR C. MORLET, D.S.O., is transferred to the Reserve of Officers, 1st January, 1922.

##### *Australian Army Medical Corps Reserve.*

HONORARY LIEUTENANT-COLONEL W. TRETOWAN and HONORARY MAJOR G. W. BAKER are placed on the Retired List, with the rank of Major, and HONORARY CAPTAIN H. ST. J. MITCHELL with the rank of Captain, with permission to wear the prescribed uniform, 1st January, 1922.

LIEUTENANT (provisionally) C. RICHARDS is transferred from the Australian Army Medical Corps, Fourth Military District, and to be Honorary Captain, 1st January, 1922.

HONORARY CAPTAINS T. WILSON, I. GEORGE, C. H. HILL, W. T. HODGE, J. HUME and W. A. S. BRIDGEFORD are retired under the provisions of Australian Military Regulation 152 (1), 1st January, 1922.

##### OLD ORGANIZATION.

##### FIRST MILITARY DISTRICT.

##### *Australian Army Medical Corps.*

CAPTAIN (provisionally and temporarily) M. L. CAMERON is retired under the provisions of Australian Military Regulation 152 (1), 31st October, 1921. (This cancels the notification respecting this officer which appeared in Executive Minute No. 467/21, promulgated in *Commonwealth of Australia Gazette*, No. 94, of 8th December, 1921.)

## Correspondence.

### THE TEACHING OF OBSTETRICS.

SIR: I have read the letter of Dr. Goodwin Hill (*THE MEDICAL JOURNAL OF AUSTRALIA*, January 7, 1922) on the above subject. He does well to draw attention to it once again. His ardour in the cause betrays your correspondent, by the way, into some dialectical indiscretions that were better avoided. This is a mistake. Good wine needs no bush. "The play's the thing" in this case, if ever in any of its kind, for without doubt the teaching of midwifery at the Sydney Medical School remains at a low standard and reform is urgently required.

The Lecturer delivers some fifty lectures every year. For this service he receives the overwhelming remuneration of £140 *per annum*! A salary *pour rire*, a disgrace alike to the University and the community at large. "More like a tip," as a friend of mine commented. Let it be counted for righteousness to our colleagues (every one of them a first-class man, in my time at any rate, *i.e.*, since

the 'eighties) who have executed the task for the money. As I have been a good deal concerned in the teaching of obstetrics, I may be allowed to say a word or two on the subject.

While the lecturer expounds his subject in this systematic way, the members of his class are allotted for clinical experience to the various lying-in institutions of the metropolis. They run in pairs. Each man "conducts" four cases and then in turn "assists" his *confrère* with four more. Beyond this, the undergrad.'s connexion with cases is casual, depending, in fact, on his own discretion.

Such is the clinical course; and to call it a practical training in the science and art of obstetrics is absurd—sounds, indeed, like an unkind sarcasm.

Several new chairs and lectureships have recently been established at the University with substantial endowment from the McCaughey bequest. But midwifery, the subject which (I hold this myself, at least) is, after anatomy, physiology and pathology, the most important in the curriculum, is treated with ostentatious neglect. It is high time to set about reform in the direction suggested by your correspondent.

The great Pasteur first demonstrated the cause of puerperal septicæmia. That was more than two generations back. "*Tenez, voici sa figure*," said he, drawing a chain-coccus on the blackboard; "*c'est le médecin et son personnel qui transportent le microbe*." The streptococcus has no power of locomotion. It is "conveyed." These words of the great master, interrupting an orthodox discussion at L'Académie de Médecine, are true to-day. True with due qualification, of course, for improvement in the field of sepsis brought about since his time and in consequence of his immortal research work. Yet much remains to do. The state of things to-day is serious. Consider the dry figures of the Statistician for New South Wales and the papers recently read by Dr. Purdy, Chief Health Officer for Sydney. The perusal should beget in us a wholesome old-fashioned "sense of sin." Statistics lie, we are told by the clever people. It is not so. The lie is in the manipulation and I do not think the damning insistence of these gentlemen's figures can be honestly evaded. A doctor's *personnel* is not, nowadays at any rate, the sole noxious factor. But yet there is a screw loose. And it is up to us as a profession to wash our hands clean, literally and "tropically" both. Sepsis is a preventable condition and it should be prevented. It has been practically cut out of surgery already.

To this end Dr. Hill's suggestion is good sense. As a medical school we have come short. A strong and united effort should be made towards reform. Am I mistaken in assuming the support of all Sydney graduates? The initiative might very well come from the British Medical Association.

The mere establishment of a Chair of Midwifery as against a lectureship will not, of course, put an end to all difficulties. It is, in truth, only a means, but none the less an essential first step. And, when taken, it should be in a manner worthy of this, the third largest medical school in the Empire.

It should be a great department, with a professor, an assistant professor and a full staff of tutors, and all Australia and the British Empire should be searched for the best talent to conduct it. The remuneration of these men or women (sure! as the case may be) should match the importance of their office, just as that office would equal in dignity any existing branch of the University service.

Yours, etc.,

A. WATSON MUNRO.

Sydney, January 16, 1922.

#### "RED BACK" SPIDER BITE.

SIR: Dr. Rodway is wide of the mark when he calls the "red back" spider "a pretty and apparently harmless creature."

Every year, principally in the summer, I am called upon to treat at least half a dozen cases of "red back" spider bite and this experience has convinced me that

*Latrodectus hasselti* is both vicious and venomous. About the size of a pea, jet black in colour, with a vermilion spot or stripe on the upper hind part of its abdomen, it moves with amazing swiftness and is quick to attack. Its favourite haunt is under the seat of a closet, across the opening of which it spins its web, and this accounts for the fact that in the majority of cases human beings are bitten on the genitals. The victim feels an intense burning pain at the site of the bite, sometimes writhing in agony. In a few minutes the pain spreads in a widening circle to limbs, abdomen and præcordium. Accompanying or following the pain in the limbs, there is first numbness, then paresis (sometimes paralysis), with profuse localized swelling of the part affected. Perhaps one leg or a part thereof will be affected for a while, then the disturbance will shift to another area or to another limb. Passing up the abdomen, it will cause vomiting and in the præcordium it gives rise to definite cardiac pain and a sense of constriction round the chest. An irregular pulse, sometimes slow, sometimes fast, a tendency to syncope and the general pallor of the patient complete a clinical picture. The symptoms last from one to four days, followed by a gradual improvement, though I remember a labourer who was too weak to return to work for three weeks after being bitten. It is my belief that if a full-grown "red back" spider were to bite a small child, the child would probably die. In a few cases I saw the patient within a few minutes of being bitten. I injected cocaine and adrenalin, scarified and rubbed potassium permanganate into the local site of the bite. This was successful in preventing the development of the constitutional symptoms.

Cases seen after a lapse of time require morphia and atropine for the pain, repeated if necessary, and strychnine or digitalis, according to the pulse indications.

For references to this subject, see:

Tidswell: "Researches on Australian Venoms" (1906).  
Cleland: "Sixth Report of the Government Bureau of Microbiology" (1915).

Powel: *Transactions of the New Zealand Institute*, III., 1870, page 56.

Rainbow: *Record of the Australian Museum*, VI., I., page 28.

Pulleine: *Transactions of the Royal Society of South Australia*, XXXVIII., 1914, page 447.

Yours, etc.,

E. B. M. VANCE.

Leeton, New South Wales,  
January 16, 1922.

SIR: My fourteen years' general practice in the Riverina has brought home to me the fact that the "red back" spider deserves all the bad things that Dr. Sutherland has said of him and is not worthy of Dr. Rodway's eulogy. Although called the "jockey spider," he is no sport. In this district he is prone to inhabit the wooden box seats of cess-pits. He "catches 'em bending" and about 80% of my cases have been bitten round the genitals.

There is not much immediate pain, but within an hour or so this symptom becomes very severe. Sweating, some collapse, prostration, are the rule. I have seen absolute inability to move one leg. I had one case that gave me four hours' grave anxiety as to his life. Two cases have been under my treatment within the last month. There is no shadow of doubt in my mind as to the toxicity of the "jockey." I see on an average three *per annum*.

A.D. has just walked into my surgery this moment. He was my first case. Thirteen years ago he felt the sting, pulled up the leg of his trousers and pulled the "jockey" off his leg. An hour after he "got bad all over" and presented the classic symptoms. He was under my care for three days and was off work a week. If any further proofs are wanted, they are easily obtained.

Yours, etc.,

H. O. LETHBRIDGE.

Narrandera, New South Wales,  
January 17, 1922.

SIR: Dr. Rodway will think I am scouring the countryside for evidence, but the arrival this morning of another



case (after my yesterday's letter) is too extraordinary a coincidence to let pass.

Mrs. G. has come in twenty-three miles to see me. She was bitten by one of these "pretty and apparently harmless little creatures" last night at 8 o'clock. She knocked the spider off her leg. She had no sleep all night because of the intense pain and is tremulous, weak in her gait, unable to stand for more than a few minutes without falling and her clothes are literally wet with sweat.

Yours, etc.,

H. O. LETHBRIDGE.

Narrandera, New South Wales,  
January 18, 1922.

### PERI-TONSILLAR ABSCESS AND ITS RADICAL TREATMENT.

SIR: I would like through you to ask my friend, Mr. Kent Hughes, whether in his letter under the above heading he wished to invite the attention of the general practitioner or his co-specialists to his methods.

Peri-tonsillar abscess or quinsy is *par excellence* an emergency of general practice and its treatment by incision through the palate is almost first aid and observing the principle "*ubi pus, ibi excisio*," etc. So we were taught and we were also taught: "Never to excise a tonsil in a state of acute inflammation." Still, we live in revolutionary times.

I have not had an opportunity of reading the article in the *Laryngoscope*. Still, it is on the matters mentioned above that I am making inquiry.

Yours, etc.,

E. H. BINNEY.

"St. Helens," Vauluse,  
January 17, 1922.

### Books Received.

EXOPHTHALMIC GOITRE: A LECTURE DELIVERED AT THE NORTH-EAST LONDON POST-GRADUATE COLLEGE, APRIL 27, 1921, by Walter Edmunds, M.A., M.Ch. (Cantab.), F.R.C.S.; 1921. London: Baillière, Tindall & Cox; Demy 8vo., pp. 36, with five figures. Price: 3s. 6d.

### Medical Appointments.

DR. C. H. HILL (B.M.A.) has been appointed District Medical Officer and Public Vaccinator at Meekatharra, Western Australia.

DR. A. R. HILL has been appointed District Medical Officer and Public Vaccinator at Mount Barker, Western Australia.

DR. E. J. BROOKS has been appointed Assistant Medical Officer at the Waterfall Sanatorium, New South Wales.

The undermentioned have been appointed Resident Medical Officers at the Adelaide Hospital: DR. H. R. BRANSON, DR. E. F. GARTRELL, DR. W. GILFILLAN, DR. A. T. B. JONES, DR. T. V. NIBLIS, DR. EFFIE J. ROBERTSON (B.M.A.), DR. W. R. TONKIN, DR. A. H. WHITE, DR. I. V. YOFFA.

### Medical Appointments Vacant, etc..

For announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xviii.

CHILDREN'S HOSPITAL (INC.), PERTH, WESTERN AUSTRALIA: Chief Resident Medical Officer.

HOOKWORM CAMPAIGN: Medical Officer in Charge of Field Unit.

LUNACY DEPARTMENT, VICTORIA: Junior Medical Officers.

### Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney	Australian Natives' Association Ashfield and District Friendly Societies' Dispensary Balmain United Friendly Societies' Dispensary Friendly Society Lodges at Casino Leichhardt and Petersham Dispensary Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney Marrickville United Friendly Societies' Dispensary North Sydney United Friendly Societies People's Prudential Benefit Society Phoenix Mutual Provident Society
VICTORIA: Honorary Secretary, Medical Society Hall, East Melbourne	All Institutes or Medical Dispensaries Australian Prudential Association Proprietary, Limited Manchester Unity Independent Order of Oddfellows Mutual National Provident Club National Provident Association
QUEENSLAND: Honorary Secretary, B. M. A. Building, Adelaide Street, Brisbane	Brisbane United Friendly Society Institute Stannary Hills Hospital
SOUTH AUSTRALIA: Honorary Secretary, 3, North Terrace, Adelaide	Contract Practice Appointments at Renmark Contract Practice Appointments in South Australia
WESTERN AUSTRALIA: Honorary Secretary, 6, Bank of New South Wales Chambers, St. George's Terrace, Perth	All Contract Practice Appointments in Western Australia
NEW ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington	Friendly Society Lodges, Wellington, New Zealand

### Diary for the Month.

- JAN. 28.—Northern District Medical Association, New South Wales.  
FEB. 3.—Queensland Branch, B.M.A.: Branch.  
FEB. 8.—Federal Committee of the British Medical Association in Australia.  
FEB. 8.—Western Australian Branch, B.M.A.: Council.  
FEB. 9.—Victorian Branch, B.M.A.: Council.  
FEB. 9.—Brisbane Hospital Clinical Society.  
FEB. 10.—Tasmanian Branch, B.M.A.: Annual Meeting.  
FEB. 10.—Queensland Branch, B.M.A.: Council.  
FEB. 10.—South Australian Branch, B.M.A.: Council.  
FEB. 14.—New South Wales Branch, B.M.A.: Ethics Committee.  
FEB. 21.—New South Wales Branch, B.M.A.: Executive and Finance Committee.  
FEB. 21.—Illawarra Suburbs Medical Association, New South Wales.  
FEB. 23.—Brisbane Hospital for Sick Children: Clinical Meeting.  
FEB. 24.—Queensland Branch, B.M.A.: Council.  
FEB. 24.—Central Southern Medical Association, New South Wales.

### Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4635.)